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PROVINCE OF MANITOBA

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NORTH-WEST TERRITORY

OF THE

DOMINION OF CANADA.

INFORMATION FOR EMIGRANTS.



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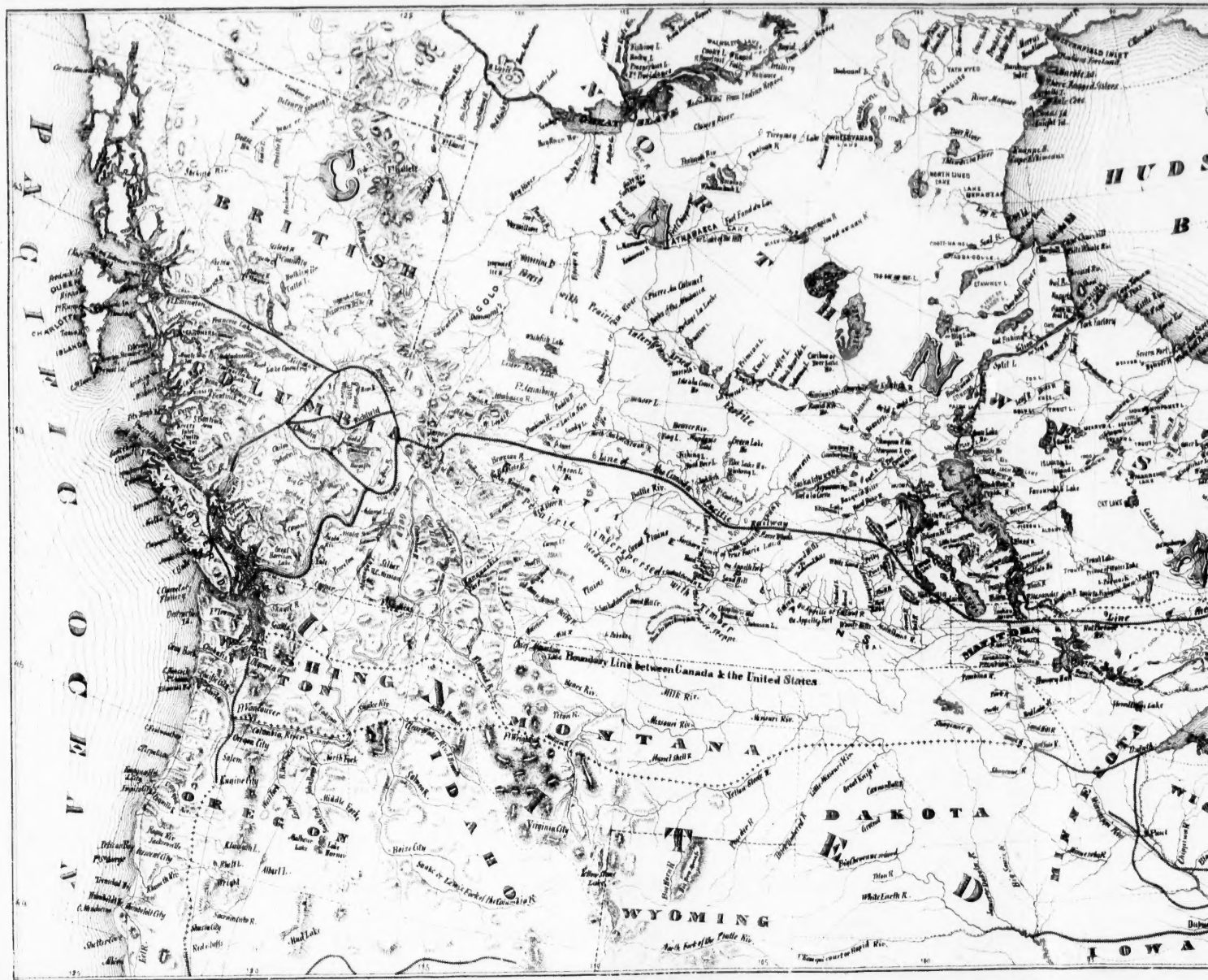
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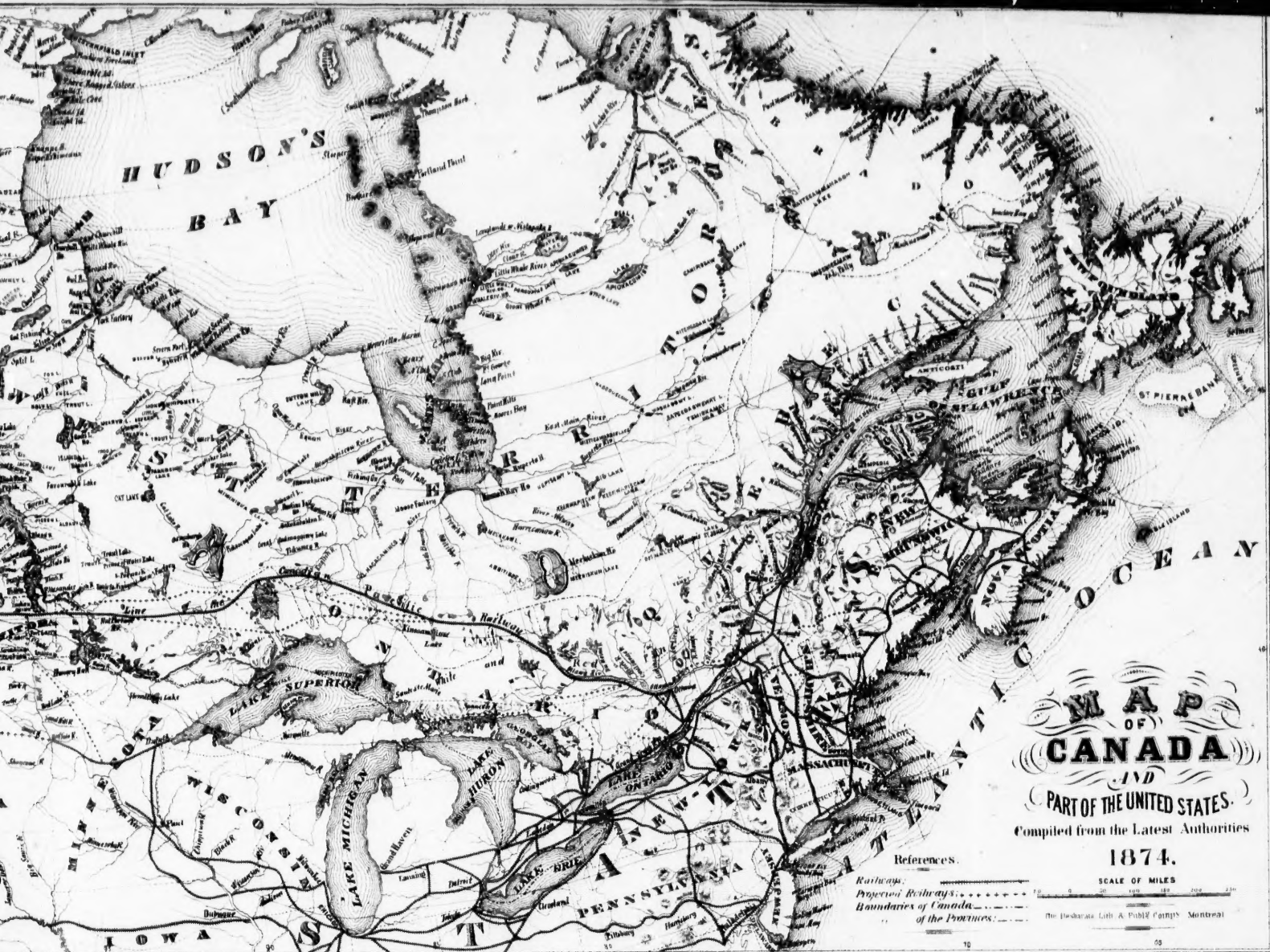
1878.



MAP
OF
CANADA
AND
PART OF THE UNITED STATES.
Compiled from the Latest Authorities
1874.

SCALE OF MILES
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The Publishers LITH & Publ'g Comps Montreal





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References.

Railways:
Proposed Railways:
Boundaries of Canada
of the Provinces:

SCALE OF MILES

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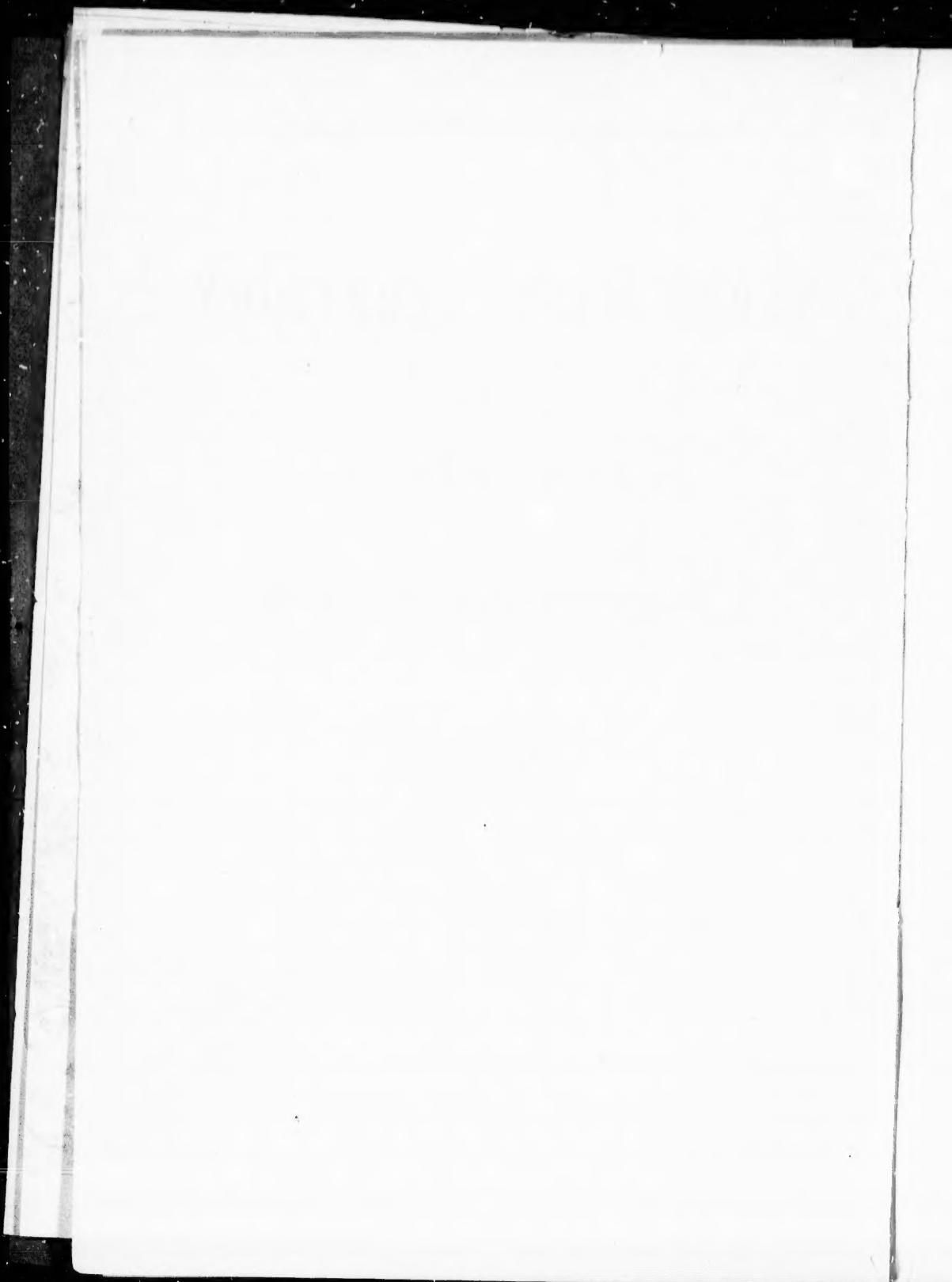
INFORMATION FOR EMIGRANTS



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• OTTAWA:

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CHAPTER I.

INTRODUCTION.

The Province of Manitoba contains about 2,000,000 acres. It is, however, comparatively a speck on the map of the vast territory, belonging to the Dominion of Canada, out of which it has been formed. It is situated in the centre of the continent of North America, nearly equally distant between the pole and the equator and the Atlantic and Pacific Oceans. The soil is for the most part prairie, of great depth and richness, and covered with grass. Its climate gives the conditions of decided heat in summer and decided cold in winter. The snow goes away, and ploughing begins in April, which is about the same as in the older Provinces of Canada, or the Northern United States on the Atlantic seaboard, or the States of Minnesota or Wisconsin. Crops are harvested in August and September. The long, warm days of summer bring vegetation of all sorts to rapid maturity. Autumn begins about the 20th of September, and lasts till the end of November, when frost sets in. The winter proper comprises the months of December, January, February and March. Spring comes in April. The summer months are part of May, June, July, August and part of September. The days are warm, and the nights cool. In winter, the thermometer sinks to 30 and 40 degrees below zero. But this degree of cold in the dry atmosphere of the North-West does not produce any unpleasant sensations. The weather is not felt to be colder than that in the Province of Quebec, nor so cold as milder winters in climates where the frost, or even a less degree of cold than frost, is accompanied with dampness. The testimony is universal on this point.

Snow does not fall on the prairies to an average greater depth than eighteen inches; and buffaloes and horses graze out of doors all winter.

The general fact seems to be that the climate of Manitoba is undoubtedly very healthy; that the soil gives very large products; that the drawback is occasional visitation of grasshoppers, which is common to it and the State of Minnesota and others of the North-Western States.

The whole of the North-West Territory of the Dominion comprises

an area of about 2,750,000 square miles, and British Columbia, 220,000 square miles. Altogether, the Dominion of Canada comprises a territory about the size of the whole continent of Europe; and nearly half a million square miles larger than the United States, without Alaska.

Until the completion of the Canadian Railway system, the best way for emigrants to reach Manitoba, from the old Provinces of Canada, is via Lakes Huron and Superior, to Duluth; thence by the Northern Pacific Railway, to a connection on the Red River; and thence by direct steamboat communication to Winnipeg. There are regular lines of boats from Sarnia and Collingwood, which are reached respectively from Toronto by the Grand Trunk and Northern Railways. Favourable fares are afforded to emigrants, and the time between Toronto and Winnipeg is about seven days.

It may be stated that links of Railway are about being completed which will give, during the summer of 1878, an all-rail connection with Winnipeg.

It may be further stated that the immense water system of the interior of the continent, west of Winnipeg, is being opened up by steamboat navigation to the base of the Rocky Mountains.

The emigrants who go to Manitoba for settlement should, for the present, be of the agricultural class, and possessed of sufficient means to begin with. Sometimes high wages are given to labourers and artisans; but the labour market, in a new country, being necessarily restricted, persons going to seek for employment should have special information before they start.

CHAPTER II.

THE EARL OF DUFFERIN, GOVERNOR OF CANADA, ON MANITOBA AND THE NORTH-WEST.

HIS VIEWS OF THE COUNTRY.

In the summer of 1877 Lord Dufferin, in pursuance, as announced by him in public speeches, of a policy of personally visiting all the Provinces within his government, made a tour of Manitoba and part of Keewatin.

In answer to an address of the Mayor and Corporation of Winnipeg, on August 6th, His Excellency, referring to the prospects of that city, said:

"I beg to thank you most warmly for the kind and hearty welcome you have extended to me, on my arrival in your flourishing city, which you rightly designate the metropolis of the North-West,

the living centre which is destined to animate with its vital energies, the rich alluvial region whose only limit appears to be an ever-receding horizon.....I am not by any means unacquainted with the record of your achievements; indeed, it is probable that there is no Province in the Dominion with whose situation I am better acquainted, so far as information in such respects can be obtained from books and Parliamentary papers; and it is to perfect, verify and extend that knowledge by personal intercourse with your leading citizens, and by an inspection of the richness of your territory, that I have come amongst you.....I have no doubt that this city and Province generally, nay, the whole territory of the North-West, is now illuminated by the dawn of a great advancement. Although it will not be my good fortune personally to preside much longer over your destinies, I need not assure you that your future will always command my warmest sympathies and continue to attract my closest attention, and I trust that, though at a distance, I may live to see the fulfilment of many of your aspirations."

Lord Dufferin very warmly acknowledged the loyalty of the people. In reference to the city of Winnipeg, it may be here remarked that when it entered the Dominion in 1870, it was simply a Hudson Bay trading station and hamlet, containing about 200 inhabitants. It is in 1877 a city containing about 7,000 inhabitants, with many large and handsome buildings, churches, schools and colleges, and the seat of a very active business. The belief of its people is that it will become the Chicago of the North-West; and it is pointed out that the early history of Chicago, within the memory of men now living, cannot establish so rapid a growth as that of Winnipeg since it entered Confederation with Canada.

At Selkirk, on the Red River, below Winnipeg, Lord Dufferin said:—

"Pleased and grateful as I am for the preparations you have made, what causes me the greatest pleasure of all is to feel that I am surrounded by a hardy, industrious, and manly community, animated by the desire to advance the renown of the British Empire, by establishing in this distant land the foundations of a settlement that in after years will become as rich and prosperous as any other on this side of the Atlantic. I can well understand that you should all look forward with the greatest interest to the completion of that great line of railway which is to connect the Atlantic with the Pacific, and bind together in an indissoluble bond all the Provinces of the Dominion. I wish you to understand that I come here not only as an official of the British Government, but as the personal representative of your beloved Sovereign, who takes the deepest interest in your welfare, and who is always anxious to be informed as to the circumstances of the most distant of her subjects. It was

only the other day that, in anticipation of my visit to this Province, Her Majesty was pleased to lay upon me her personal commands to render her a faithful and accurate account of my visit, and more especially to inform her as to the condition and well-being of her people in this Province."

On August, the 18th, the Vice-Royal Party visited the Rat River Mennonite Settlement, on the east side of Red River. These people came from Berdiansk, in South Russia, three years ago; and there are now about 7,000 of them in Manitoba, in a highly prosperous condition. They left a comfortable and flourishing district in Russia, because they were conscientiously opposed to military service, which was required of them by an Ukase of the Czar, and because they were required to conform to the school system of Russia, and have their children taught, under Russian auspices, the Russian language and incidentally the national creed. The Mennonites said in their address to Lord Dufferin:

"We are pleased to be able to state that we are satisfied in the highest degree with the country and the soil, and also the manner in which the government have kept their promises to us. Your Excellency has now the opportunity of seeing for yourself what we have accomplished during our short residence. You see our villages, our fields, and our bountiful harvest—witnesses in themselves that the capabilities of the country have not been misrepresented to us. Under the guidance and protection of Divine Providence, we have every reason to look forward confidently to great future prosperity, our villages multiplied, and our herds increased. We are contented and willing to obey the laws of the land, but we cannot reconcile our religious belief with the performance of military duty."

Lord Dufferin made the following remarks in reply, which were translated to them sentence by sentence:

"You have come to a land where you will find the people with whom you are to associate engaged indeed in a great struggle, and contending with foes which it requires their best energies to encounter. But those foes are not your fellow-men, nor will you be called upon in the struggle to stain your hands with human blood—a task which is so abhorrent to your religious feelings. The war to which we invite you as recruits and comrades is a war waged against the brute forces of nature; but those forces will welcome our domination and reward our attack by placing their treasures at our disposal. It is a war of ambition—for we intend to annex territory after territory—but neither blazing villages nor devastated fields will mark our ruthless track; our battalions will march across the illimitable plains which stretch before us, as sunshine steals athwart the ocean; the rolling prairie will blossom in our wake, and corn and peace and plenty will spring where we have trod.

"The forms of worship you have brought with you, you will be able to practise in the most unrestricted manner, and we confidently trust that those blessings which have waited upon your virtuous exertions, in your Russian homes, will continue to attend you here; for we hear that you are a sober-minded and God-fearing community, and as such you are doubly welcome among us. It is with the greatest pleasure I have passed through your villages, and witnessed your comfortable homesteads, barns and byres, which have arisen like magic upon this fertile plain, for they prove indisputably that you are expert in agriculture, and already possess a high standard of domestic comfort. In the name, then, of Canada and her people, in the name of Queen Victoria and her empire, I again stretch out to you the hand of brotherhood and good fellowship, for you are as welcome to our affections as you are to our lands, our liberties and freedom. In the eye of our law the least among you is the equal of the highest magnate in our land, and the proudest of our citizens may well be content to hail you as his fellow-countrymen. You will find Canada a beneficent and loving mother, and under her fostering care, I trust your community is destined to flourish and extend in wealth and numbers through countless generations. In one word, beneath the flag whose folds now wave above us you will find protection, peace, civil and religious liberty, constitutional freedom and equal laws."

Lord Dufferin also visited the Icelandic settlement on the west shore of Lake Winnipeg. This colony had not been settled two years at the time of His Excellency's visit; and, in fact, the larger portion of the colonists had only arrived the previous autumn. They had suffered a very severe affliction from an epidemic of small-pox, and the ravages of scurvy. Both these diseases were aggravated by the insufficient preparations which the Icelanders had been able to make for the winter, and very rigorous Quarantine regulations had only been removed five or six weeks before the arrival of His Excellency. It may be remarked that the colony contained at that time about 1500 souls, and extended from the N. Boundary of Manitoba for about thirty miles on the west shore of the Lake. The colony, however, in the face of these great discouragements was found to be in a fairly successful condition. 200 commodious houses had been erected, roads had been cut, and from two to ten acres cleared by each settler. There were 600 head of cattle in the colony, and the cows were in good condition and well taken care of. There had not been time to plant much grain, but that which was planted was successful. There were good crops of potatoes; and the soil, after clearing, was found to be rich black alluvium. The fish supply from the lake was abundant, and altogether the Icelandic colonists were in a satisfied and flourishing condition writing to their friends in Iceland to

join them. Lord Dufferin, who appears to have taken particular interest in this colony, spoke with much warmth as follows:

"Men and Women of Iceland, now Citizens of Canada, and Fellow Subjects of Her Majesty the Queen:

"When it was my good fortune twenty years ago to visit your island, I never thought that the day would come when I should be called upon, as the representative of the British Crown, to receive you in this country; but the opportunities I have thus had of becoming acquainted with your dramatic history, with your picturesque literature, and the kindness I have experienced at the hands of your country-men, now enable me with the greater cordiality to bid you welcome. I have learnt with extreme sorrow of the terrible trials to which you have been exposed so soon after your arrival by the unexpected ravages of a terrible epidemic. Such a visitation was well calculated to damp your spirits and to benumb your energies, aggravating as it did those inevitable hardships which attend the first efforts of all colonists to establish themselves in a new land. The precautions which the Local Government was reluctantly compelled to take to prevent the spreading of the contagion through the Province must also have been both galling and disadvantageous, but I trust that the discouragements which attended your advent amongst us have now forever passed away, and that you are fairly embarked on a career of happiness and prosperity.

"Indeed, I understand that there is not one amongst you who is not perfectly content with his new lot, and fully satisfied that the change which has taken place in his destiny is for the better. During a hasty visit like the present, I cannot pretend to acquire more than a superficial insight into your condition, but so far as I have observed, things appear to be going sufficiently well with you. The homesteads I have visited seem well built and commodious, and are certainly far superior to any of the farmhouses I remember in Iceland, while the gardens and little clearings which have begun to surround them show that you have already tapped an inexhaustible store of wealth in the rich alluvial soil on which we stand. The three arts most necessary to a Canadian colonist are the felling of timber, the ploughing of land, and the construction of highways, but as in your own country none of you had ever seen a tree, a cornfield, or a road, it is not to be expected that you should immediately exhibit any expertness in these accomplishments, but practice and experience will soon make you the masters of all three, for you possess in a far greater degree than is probably imagined that which is the essence and foundation of all superiority—intelligence, education and intellectual activity. In fact I have not entered a single hut or cottage in the settlement which did not contain, no

matter how bare its walls or scanty its furniture, a library of twenty or thirty volumes; and I am informed that there is scarcely a child amongst you who cannot read and write.

"Secluded as you have been for hundreds of years from all contact with the civilization of Europe, you may in many respects be a little rusty and behind the rest of the world; nor perhaps have the conditions under which you used to live at home—where months have to be spent in the enforced idleness of a sunless winter—accustomed you to those habits of continued and unflagging industry which you will find necessary to your new existence; but in our brighter, drier, and more exhilarating climate you will become animated with fresh vitality, and your continually expanding prosperity will encourage you year by year to still greater exertions. Beneath the genial influence of the fresh young world to which you have come, the dormant capacities of your race, which adverse climatic and geographical conditions may have somewhat stunted and benumbed, will bud and burgeon forth in all their pristine exuberance, as the germs which have been for centuries buried beneath the pyramids and catacombs of Egypt are said to excel in the exuberance and succulence of their growth the corn seeds of last year's harvest. But, as sun and air and light are necessary to produce this miracle, so it will be necessary for you to profit as much as possible by the example and by the intercourse of your more knowledgeable neighbours.

"I have learnt with great satisfaction that numbers of your young women have entered the households of various Canadian families, where they will not only acquire the English language, which it is most desirable you should all know, and which they will be able to teach their brothers and sisters, and—I trust I may add, in the course of time, their children—but will also learn those lessons of domestic economy and housewifely neat-handedness which are so necessary to the well-being, health and cheerfulness of our homes.

"I am also happy to be able to add that I have received the best accounts from a great number of people of the good conduct, handiness and docility of these young Ingeborgs, Raghnhildas, Thoras, and Gudruns, who, I trust, will do credit to the epical ancestresses from whom they have inherited their names. Many of the houses I visited to-day bore evident signs, in their airiness, neatness and well-ordered appearance, of possessing a house-wife who had already profited from her contact with the outer world.

"And while I am upon this subject there is one practical hint which I shall venture to make to you. Every single house I visited to-day, many of them being mere temporary huts, with, at the most, two small chambers, was furnished with a large close iron cooking-stove, evidently used not merely for cooking purposes, but also for heating

the habitation. I believe that this arrangement is anything but desirable, and that, at all events, in those houses where a separate kitchen cannot be obtained an open fireplace should be introduced. I am quite certain that if I were to come amongst you in winter I should find these stoves in full operation, and every crevice in your shanties sealed up from the outer air.

"Now you are surrounded by an inexhaustible supply of the best possible fuel, which can be obtained with comparatively little labour, and consequently economy of coal, which is their chief recommendation, need not drive you to an excessive use of these unwholesome appliances. Our winter air, though sufficiently keen, is healthy and bracing, and a most potent incentive to physical exertion, whereas the mephitic vapours of an over-heated, closely-packed chamber paralyze our physical as well as our mental activities. A constitution nursed upon the oxygen of our bright winter atmosphere makes its owner feel as though he could toss about the pine trees in his glee, whereas to the sluggard simmering over his stove-pipe it is a horror and a nameless hardship to put his nose outside the door.

"I need not tell you that in a country like this the one virtue pre-eminently necessary to every man is self-reliance, energy, and a determination to conquer an independent living for himself, his wife, and children, by the unassisted strength of his own right arm. Unless each member of the settlement is possessed and dominated by this feeling, there can be no salvation for any one.

"But why need I speak to Icelanders--to you men and women of the grand old Norse race, of the necessity of patience under hardship, courage in the face of danger, dogged determination in the presence of difficulties? The annals of your country are bright with the records of your forefathers' noble endurance. The sons and daughters of the men and women who crossed the Arctic Ocean in open boats, and preferred to make their homes amid the snows and cinders of a volcano rather than enjoy peace and plenty under the iron sway of a despot, may afford to smile at anyone who talks to them of hardship or rough living beneath the pleasant shade of these murmuring branches, and beside the laughing ripples of yonder shining lake.

"The change now taking place in your fortunes is the very converse and opposite of that which befell your forefathers. They fled from their pleasant homes and golden cornfields into a howling wilderness of storm and darkness, ice and lava, but you I am welcoming to the healthiest climate on the continent, and to a soil of unexampled fertility, which a little honest industry on your part will soon turn into a garden of plenty. Nor do we forget that no race has a better right to come amongst us than yourselves, for it is probably to the hardihood of the Icelandic navigators that the world is indebted for the discovery of this continent. Had not Columbus visited your

island and discovered in your records a practical and absolute confirmation of his own brilliant speculations in regard to the existence of western land, it is possible he might never have had the enterprise to tempt the unknown Atlantic.

"Again, then, I welcome you to this country—a country in which you will find yourselves freemen, serving no overlord, and being no man's men but your own: each, master of his own farm, like the Udalmen and "Bonders" of old days; and remember that in coming amongst us you will find yourselves associated with a race both kind-hearted and cognate to your own; nor in becoming Englishmen and subjects of Queen Victoria need you forget your own time-honoured customs or the picturesque annals of your forefathers.

"On the contrary, I trust you will continue to cherish for all time the heart-stirring literature of your nation, and that from generation to generation your little ones will continue to learn in your ancient Sagas that industry, energy, fortitude, perseverance and stubborn endurance have ever been the characteristics of the noble Icelandic race.

"I have pledged my personal credit to my Canadian friends on the successful development of your settlement. My warmest and most affectionate sympathies attend you, and I have not the slightest misgiving but that, in spite of your enterprise being conducted under what of necessity are somewhat disadvantageous conditions, not only will your future prove bright and prosperous, but that it will be universally acknowledged that a more valuable accession to the intelligence, patriotism, loyalty, industry and strength of the country has never been introduced into the Dominion."

On the occasion of the vice-regal visit drawing to a close, the citizens of Winnipeg invited His Excellency the Earl of Dufferin to a public banquet at which he made a speech in review of his personal observations of the country and the facts he had gathered, in the following eloquent terms:—

"Mr. Mayor, your Honour, Ladies and Gentlemen:

"In rising to express my acknowledgments to the citizens of Winnipeg for thus crowning the friendly reception I have received throughout the length and breadth of Manitoba by so noble an entertainment, I am painfully impressed by the consideration of the many respects in which my thanks are due to you and o so many other persons in the Province." (Applause.)

"From our first landing on your quays until the present moment my progress through the country has been one continual delight—(loud applause)—nor has the slightest hitch or incongruous incident marred the satisfaction of my visit. I have to thank you for the hospitalities I have enjoyed at the hands of your individual citizens,

as well as of a multitude of independent communities, for the tasteful and ingenious decorations which adorned my route, for the quarter of a mile of evenly-yoked oxen that drew our triumphal car—(applause)—for the universal proofs of your loyalty to the Throne and the Mother Country, and for your personal good-will towards Her Majesty's representative.

"Above all, I have to thank you for the evidences produced on either hand along our march of your prosperous condition, of your perfect contentment, of your confidence in your future fortunes, for I need not tell you that to any one in my situation, smiling corn-fields, cosy homesteads, the joyful faces of prosperous men and women, and the laughter of healthy children, are the best of all triumphal decorations. (Great applause.)

"But there are others for which I ought to be obliged to you, and not the least for the beautiful weather you have taken the precaution to provide us with during some six weeks of perpetual camping-out—(laughter)—for which attention I have received Lady Dufferin's especial orders to render you her personal thanks—an attention which the unusual phenomenon of a casual waterspout enabled us only the better to appreciate; and lastly though certainly not least, for not having generated amongst you that fearful entity 'A Pacific Railway Question'—at all events not in those dire and tragic proportions in which I have encountered it elsewhere. (Great laughter.) Of course I know a certain phase of the railway question is agitating even this community, but it has assumed the mild character of a domestic rather than of an inter-Provincial controversy.

"Two distinguished members, moreover, of my present Government have been lately amongst you, and have doubtless acquainted themselves with your views and wishes. It is not necessary, therefore, that I should mar the hilarious character of the present festival by any untimely allusions to so grave a matter. Well then, ladies and gentlemen, what am I to say and do to you in return for all the pleasure and satisfaction I have received at your hands?

"I fear there is very little that I can say, and scarcely anything that I can do, commensurate with my obligations. Stay—there is one thing at all events I think I have already done, for which I am entitled to claim your thanks.

"You are doubtless aware that a great political controversy has for some time raged between the two great parties of the State as to which of them is responsible for the visitation of that terror of two continents—the Colorado bug. (Great laughter.) The one side is disposed to assert that if their opponents had never acceded to power the Colorado bug would never have come to Canada. (Renewed laughter.)

"I have reason to believe, however, though I know not whether.

any substantial evidence has been adduced in support of their assertion—(laughter)—that my Government deny and repudiate having had any sort of concert or understanding with that irrepressible invader. (Roars of laughter.) It would be highly unconstitutional for me, who am bound to hold a perfectly impartial balance between the contending parties of the State, to pronounce an opinion upon this momentous question. (Renewed laughter.)

"But, however disputable a point may be the prime and original authorship of the Colorado bug, there is one fact no one will question, namely, that to the presence of the Governor-General in Manitoba is to be attributed the sudden, total, otherwise unaccountable, and I trust permanent disappearance, not only from this Province, but from the whole North-west, of the infamous and unmentionable "hopper" (loud laughter) whose annual visitations for the last seventeen years have proved so distressing to the agricultural interest of the entire region.

"But, apart from being the fortunate instrument of conferring this benefit upon you—(laughter)—I fear the only further return in my power is to assure you of my great sympathy with you in your endeavours to do justice to the material advantages with which your Province has been so richly endowed by the hands of Providence. From its geographical position, and its peculiar characteristics, Manitoba may be regarded as the keystone of that mighty arch of sister Provinces which spans the continent from the Atlantic to the Pacific. (Great applause.) It was here that Canada, emerging from her woods and forests, first gazed upon her rolling prairies and unexplored North-West, and learnt as by an unexpected revelation that her historical territories of the Canadas, her eastern seaboard of New Brunswick, Labrador and Nova Scotia, her Laurentian lakes and valleys, corn lands and pastures, though themselves more extensive than half a dozen European kingdoms (applause,) were but the vestibules and antechambers to that till then undreamt of Dominion, whose illimitable dimensions alike confound the arithmetic of the surveyor and the verification of the explorer. (Tremendous applause.)

"It was hence that, counting her past achievements as but the preface and prelude to her future exertions and expanding destinies, she took a fresh departure, received the afflatus of a more imperial inspiration, and felt herself no longer a mere settler along the banks of a single river, but the owner of half a continent, and in the magnitude of her possession, in the wealth of her resources, in the sinews of her material might, the peer of any power on the earth. (Loud applause.)

"In a recent remarkably witty speech, the Marquis of Salisbury alluded to the geographical misconceptions often engendered by the

smallness of the maps upon which the figure of the world is depicted. To this cause is probably to be attributed the inadequate idea entertained by the best educated persons of the extent of Her Majesty's North American possessions. Perhaps the best way of correcting such a universal misapprehension would be by a summary of the rivers which flow through them, for we know that as a poor man cannot afford to live in a big house, so a small country cannot support a big river. Now, to an Englishman or a Frenchman the Severn or the Thames, the Seine or the Rhone, would appear considerable streams, but in the Ottawa, a mere affluent of the St. Lawrence, an affluent, moreover, which reaches the parent stream six hundred miles from its mouth, we have a river nearly five hundred and fifty miles long, and three or four times as big as any of them. (Applause.)

"But, even after having ascended the St. Lawrence itself to Lake Ontario, and pursued it across Lake Huron, the Niagara, the St. Clair, and Lake Superior to Thunder Bay, a distance of one thousand five hundred miles, where are we? In the estimation of the person who has made the journey, at the end of all things—(great laughter)—but to us who know better, scarcely at the commencement of the great fluvial systems of the Dominion;—for, from that spot—that is to say, from Thunder Bay—we are able at once to ship our astonished traveller on to the Kaministiquias, a river of some hundred miles long. Thence almost in a straight line we launch him on to Lake Shebandowan and Rainy Lake and River—whose proper name by the by is "Réné," after the man who discovered it—a magnificent stream three hundred yards broad, and a couple of hundred miles long, down whose tranquil bosom he floats into the Lake of the Woods, where he finds himself on a sheet of water which, though diminutive as compared with the inland seas he has left behind him, will probably be found sufficiently extensive to render him fearfully sea-sick—(loud laughter) during his passage across it. For the last eighty miles of his voyage, however, he will be consoled by sailing through a succession of land-locked channels, the beauty of whose scenery, while it resembles, certainly excels, the far-famed Thousand Islands of the St. Lawrence. (Loud cheering.)

"From this lacustrian paradise of sylvan beauty we are able at once to transfer our friend to the Winnipeg, a river whose existence in the very heart and centre of the continent is in itself one of nature's most delightful miracles, so beautiful and varied are its rocky banks, its tufted islands, so broad, so deep, so fervid is the volume of its waters, the extent of their lake-like expansions, and the tremendous power of their rapids. (Tremendous applause.)

"At last let us suppose we have landed our traveller at the town.

of Winnipeg, the half-way house of the continent, the capital of the Prairie Province, and I trust the future "umbilicus" of the Dominion. (Great cheering.) Having had so much of water, having now reached the home of the buffalo, like the extenuated Falstaff, he naturally "babbles of green fields" (laughter and applause), and careers in imagination over the primeval grasses of the prairie. Not at all. Escorted by Mr. Mayor and the Town Council, we take him down to your quay, and ask him which he will ascend first, the Red River or the Assiniboine, two streams, the one five hundred miles long, the other four hundred and eighty, which so happily mingle their waters within your city limits. (Applause.)

"After having given him a preliminary cunter upon these respective rivers, we take him off to Lake Winnipeg, an inland sea three hundred miles long and upwards of sixty broad, during the navigation of which for many a weary hour he will find himself out of sight of land, and probably a good deal more indisposed than ever he was on the Lake of Woods, or even the Atlantic. (Laughter.)

"At the North-West angle of Lake Winnipeg he hits upon the mouth of the Saskatchewan, the gateway and high road to the North-West, and the starting point to another one thousand five hundred miles of navigable water flowing nearly due east and west between its alluvial banks.

"Having now reached the foot of the Rocky Mountains our 'Ancient Mariner'—(laughter)—for by this time he will be quite entitled to such an appellation—knowing that water cannot run up hill feels certain his aquatic experiences are concluded. (Laughter and applause.) He was never more mistaken. (Laughter.) We immediately launch him upon the Athabaska and Mackenzie Rivers, and start him on a longer trip than he has yet undertaken—(laughter)—the navigation of the Mackenzie River alone exceeding two thousand five hundred miles. If he survives this last experience, we wind up his peregrinations by a concluding voyage of one thousand four hundred miles down the Fraser River; or, if he prefers it, the Thompson River to Victoria, in Vancouver, whence, having previously provided him with a first-class return ticket for that purpose he will probably prefer getting home *via* the Canadian Pacific. (Roars of Laughter.)

"Now, in this enumeration, those who are acquainted with the country are aware that for the sake of brevity I have omitted thousands of miles of lakes and rivers which water various regions of the North-West. The Qu'Appelle River, Belly River, Lake Manitoba, the Winnipegosis, Shoal Lake, &c., &c., along which I might have dragged and finally exterminated our way-worn guest—(laughter)—but the sketch I have given is more than sufficient for my purpose; and when it is further remembered that the most of

these streams flow for their entire length through alluvial plains of the richest description—(applause)—where year after year wheat can be raised without manure, or any sensible diminution in its yield—(hear, hear)—and where the soil everywhere presents the appearance of a highly-cultivated suburban kitchen garden in England, enough has been said to display the agricultural riches of the territories I have referred to—(great applause)—and the capabilities they possess of affording happy and prosperous homes to millions of the human race. (Long continued applause.)

“But in contemplating the vistas thus opened to our imagination, we must not forget that there ensues a corresponding expansion of our obligations. For instance, unless great care is taken, we shall find, as we move westwards, that the exigencies of civilization may clash injuriously with the prejudices and traditional habits of our Indian fellow-subjects. As long as Canada was in the woods, the Indian problem was comparatively easy; the progress of settlement was slow enough to give ample time and opportunity for arriving at an amicable and mutually convenient arrangement with each tribe with whom we successively came into contact; but once out upon the plains, colonization will advance with far more rapid and ungovernable strides, and it cannot fail, eventually, to interfere with the by no means inexhaustible supply of buffalo, upon which so many of the Indian tribes are now dependent.

“Against this contingency it will be our most urgent and imperative duty to take timely precautions, by enabling the red-man, not by any undue pressure, or hasty or ill-considered interference, but by precept, example, and suasion, by gifts of cattle and other encouragements, to exchange the precarious life of a hunter for that of a pastoral, and eventually that of an agricultural people. (Applause.)

“Happily in no part of Her Majesty’s dominions are the relations existing between the white settlers and the original natives and masters of the land so well understood or so generously and humanely interpreted as in Canada, and as a consequence, instead of being a cause of anxiety and disturbance the Indian tribes of the Dominion are regarded as a valuable adjunct to our strength and industry. (Hear, hear, and applause.)

“Wherever I have gone in the Province—and since I have been here, I have travelled nearly a thousand miles within your borders—I have found the Indians upon their several reserves, pretermittting a few petty grievances of a local character they thought themselves justified in preferring, contented and satisfied, upon the most friendly terms with their white neighbours, and implicitly confiding in the good faith and paternal solicitude of the Government. (Applause.)

"In some districts I have learnt with pleasure that the Sioux, who some years since entered our territory under such sinister circumstances—I do not, of course, refer to the recent visit of Sitting Bull and his people—who, however, I believe are remaining perfectly quiet—are not only peaceable and well behaved, but have turned into useful and hardworking labourers and harvest men; while in the more distant settlements, the less domesticated bands of natives, whether as hunters, voyageurs, guides, or purveyors of our furs and game, prove an appreciably advantageous element in the economical structure of the colony. (Applause.)

"There is no doubt that a great deal of the good feeling thus subsisting between the red men and ourselves is due to the influence and interposition of that invaluable class of men, the half-breed settlers and pioneers of Manitoba—(loud applause)—who, combining as they do the hardihood, the endurance, and love of enterprise generated by the strain of Indian blood within their veins, with the civilization, the instruction, and intellectual power derived from their fathers, have preached the Gospel of peace and good-will, and mutual respect, with equally beneficent results to the Indian chieftain in his lodge and to the British settler in his shanty. (Great applause.)

"They have been the ambassadors between the east and the west; the interpreters of civilization and its exigencies to the dwellers on the prairie, as well as the exponents to the white men of the consideration justly due to the susceptibilities, the sensitive self-respect, the prejudices, the innate craving for justice of the Indian race. (Loud applause.)

"In fact, they have done for the colony what otherwise would have been left unaccomplished, and have introduced between the white population and the red man a traditional feeling of amity and friendship which but for them it might have been impossible to establish. (Cheers.)

"Nor can I pass by the humane, kindly and considerate attention which has ever distinguished the Hudson Bay Company in its dealings with the native population. (Applause.) But though giving due credit to these fortunate influences amongst the causes which are conducing to produce and preserve this fortunate result, the place of honour must be adjudged to that honorable and generous policy which has been pursued by successive Governments towards the Indians of Canada, and which at this moment is being superintended and carried out with so much tact, discretion and ability by your present Lieutenant-Governor (applause) under which the extinction of the Indian title upon liberal terms has invariably been recognized as a necessary preliminary to the occupation of a single square yard of native territory. (Cheering.)

"But our Indian friends and neighbours are by no means the

only alien communities in Manitoba which demand the solicitude of the Government and excite our sympathies and curiosity.

"In close proximity to Winnipeg two other communities—the Mennonites and Icelanders—starting from opposite ends of Europe without either concert or communication, have sought fresh homes within our territory; the one of Russian extraction, though German race, moved by a desire to escape from the obligations of a law which was repulsive to their conscience—the other, bred amid the snows and ashes of an Arctic volcano, by the hope of bettering their material condition. (Applause.)

"Although I have witnessed many sights to cause me pleasure during my various progresses through the Dominion, seldom have I beheld any spectacle more pregnant with prophecy, more fraught with promise of a successful future, than the Mennonite settlement. (Applause.) When I visited these interesting people they had only been two years in the Province, and yet in a long ride I took across many miles of prairie, which but yesterday was absolutely bare, desolate and untenanted, the home of the wolf, the badger and the eagle, I passed village after village, homestead after homestead, furnished forth with all the conveniences and incidents of European comfort and a scientific agriculture, while on either side the road, corn-fields already ripe for harvest and pastures populous with herds of cattle stretched away to the horizon. (Great applause.)

"Even on this continent—the peculiar theatre of rapid change and progress—there has nowhere, I imagine, taken place so marvellous a transformation (cheers); and yet, when in your name, and in the name of the Queen of England, I bade these people welcome to their new homes, it was not the improvement in their material fortunes that pre-occupied my thoughts. Glad as I was to have the power of allotting them so ample a portion of our teeming soil—a soil which seems to blossom at a touch—(cheering)—and which they were cultivating to such manifest advantage, I felt infinitely prouder in being able to throw over them the ægis of the British Constitution—(loud cheers)—and in bidding them freely share with us our unrivalled political institutions, and our untrammelled personal liberty. (Great cheering.)

"We ourselves are so accustomed to breathe the atmosphere of freedom that it scarcely occurs to us to consider and appreciate our advantage in this respect. (Hear, hear.) It is only when we are reminded, by such incidents as that to which I refer, of the small extent of the world's surface over which the principles of Parliamentary Government can be said to work smoothly and harmoniously, that we are led to consider the exceptional happiness of our position. (Applause.)

"Nor was my visit to the Icelandic community less satisfactory

than that to our Mennonite fellow-subjects. From accidental circumstances I have been long since led to take an interest in the history and literature of the Scandinavian race, and the kindness I once received at the hands of the Icelandic people in their own island naturally induced me to take a deep interest in the welfare of this new immigration. (Applause.)

"When we take into account the secluded position of the Icelandic nation for the last thousand years, the unfavourable conditions of their climatic and geographical situation, it would be unreasonable to expect that a colony from thence should exhibit the same aptitudes for agricultural enterprise and settlement as would be possessed by a people fresh from intimate contact with the higher civilization of Europe.

"In Iceland there are neither trees, nor cornfields, nor highways. You cannot, therefore, expect an Icelander to exhibit an inspired proficiency in felling timber, ploughing land, or making roads, yet unfortunately these are the three accomplishments most necessary to a colonist in Canada. But though starting at a disadvantage in these respects, you must not underrate the capacity of your new fellow-countrymen. They are endowed with a great deal of intellectual ability, and a quick intelligence. They are well educated. I scarcely entered a hovel at Gimli which did not possess a library.

"They are well-conducted, religious and peaceable. Above all they are docile and anxious to learn. (Applause.) Nor, considering the difficulty which prevails in this country in procuring women servants, will the accession of some hundreds of bright, good-humoured, though perhaps inexperienced, yet willing, Icelandic girls, anxious for employment, be found a disadvantage by the resident ladies of the country. Should the dispersion of these young people lead in course of time to the formation of more intimate and tenderer ties than those of mere neighbourhood between the Canadian population and the Icelandic colony, I am safe in predicting that it will not prove a matter of regret on the one side or the other. (Applause.)

"And, gentlemen, in reference to this point, I cannot help remarking with satisfaction on the extent to which a community of interests, the sense of being engaged in a common undertaking, the obvious degree in which the prosperity of any one man is a gain to his neighbours, has amalgamated the various sections of the population of this Province, originally so diverse in race, origin, and religion, into a patriotic, closely welded, and united whole. (Applause.)

"In no part of Canada have I found a better feeling prevailing between all classes and sections of the community. (Cheers.) It is in a great measure owing to this widespread sentiment of brotherhood that on a recent occasion great troubles have been averted,

while at the present moment it is finding its crowning and most triumphant expression in the establishment of a University under conditions which have been found impossible of application in any other Province of Canada—I may say in any other country in the world—(great cheering) – for nowhere else, either in Europe or on this continent, as far as I am aware, have the bishops and heads of the various religious communities into which the Christian world is unhappily divided, combined to erect an *Alma Mater* to which all the denominational colleges of the Province are to be affiliated, and whose statutes and degrees are to be regulated and dispensed under the joint auspices of a governing body in which all the Churches of the land will be represented. (Great applause.)

“An achievement of this kind speaks volumes in favour of the wisdom, liberality, and Christian charity of those devoted men by whom in this distant land the consciences of the population are led and enlightened, and long may they be spared to see the efforts of their exertions and magnanimous sacrifices in the good conduct and grateful devotion of their respective flocks. (Cheers.) Nor, I am happy to think, is this good fellowship upon which I have so much cause to congratulate you confined either within the limits of the Province or even within those of the Dominion.

“Nothing struck me more on my way through St. Paul, in the United States, than the sympathetic manner in which the inhabitants of that flourishing city alluded to the progress and prospects of Canada and the North-West—(loud applause)—and on arriving here I was equally struck by finding even a more exuberant counterpart of those friendly sentiments. (Great applause.)

“The reason is not far to seek. Quite independently of the genial intercourse promoted by neighbourhood and the intergrowth of commercial relations, a bond of sympathy between the two populations is created by the consciousness that they are both engaged in an enterprise of world-wide importance, that they are both organized corps in the ranks of humanity, and the wings of a great army marching in line on a level front; that they are both engaged in advancing the standards of civilization westwards, and that for many a year to come they will be associated in the task of converting the breadths of prairie that stretch between them and the setting sun into one vast paradise of international peace, of domestic happiness and material plenty. (Great cheering.)

“Between two communities thus occupied it is impossible but that amity and loving kindness should be begotten. (Applause.)

“But perhaps it will be asked how can I, who am the natural and chief guardian of Canada’s virtue, mark with satisfaction such dangerously sentimental proclivities towards her seductive neighbour. I will reply by appealing to those experienced matrons and

chaperones I see around me. They will tell you that when a young lady expresses her frank admiration for a man, when she welcomes his approach with unconstrained pleasure, crosses the room to sit beside him, presses him to join her picnic, praises him to her friends, there is not the slightest fear of her affections having been surreptitiously entrapped by the gay deceiver. (Loud laughter.)

"On the contrary, it is when she can be scarcely brought to mention his name—(great laughter)—when she alludes to him with malice and disparagement, that real danger is to be apprehended. (Renewed laughter.)

"No! No! Canada both loves and admires the United States, but it is with the friendly, frank affection which a heart-whole state-ly maiden feels for some big, boisterous, hobbledohoy of a cousin, fresh from school, and elate with animal spirits and good nature. She knows he is stronger and more muscular than herself, has lots of pocket-money (laughter), can smoke cigars and "loaf round" in public places in an ostentatious manner forbidden to the decorum of her own situation. (Uproarious laughter.) She admires him for his bigness, strength and prosperity; she likes to hear of his punching the heads of other boys (laughter); she anticipates and will be proud of his future success in life, and both likes him and laughs at him for his affectionate, loyal, though somewhat patronising friendship for herself (great laughter); but of no nearer connection does she dream, nor does his bulky image for a moment disturb her virginal meditations. (Laughter.)

"In a world apart, secluded from all extraneous influences, nestling at the feet of her majestic mother, Canada dreams her dream, and forebodes her destiny—a dream of ever-broadening harvests, multiplying towns and villages, and expanding pastures; of constitutional self-government and a confederated Empire; of page after page of honourable history, added as her contribution to the annals of the Mother Country and to the glories of the British race; of a perpetuation for all time upon this continent of that temperate and well-balanced system of Government which combines in one mighty whole, as the eternal possession of all Englishmen, the brilliant history and traditions of the past with the freest and most untrammelled liberty of action in the future. (Tremendous cheering.)

"Ladies and gentlemen, I have now done. I have to thank you for the patience with which you have listened to me, and once again for the many kindnesses you have done Lady Dufferin and myself during my stay amongst you. Most heartily do I congratulate you upon all that you are doing, and upon the glorious prospect of prosperity which is opening out on every side of you. (Applause.) Though elsewhere in the Dominion stagnation of trade and commerce has checked for a year or two the general

advance of Canada, here at least you have escaped the effects of such sinister incidents, for your welfare being based upon the most solid of all foundations, the cultivation of the soil, you are in a position to pursue the even tenor of your ways untroubled by those alternations of fortune which disturb the world of trade and manufacture. You have been blessed with an abundant harvest, and soon, I trust, will a railway come to carry to those who need it the surplus of your produce—now, as my own eyes have witnessed, imprisoned in your storehouses for want of the means of transport. (Cheers.) May the expanding finances of the country soon place the Government in a position to gratify your just and natural expectations. (Great cheering.)”

CHAPTER III.

HONOURABLE MR. SUTHERLAND'S EVIDENCE.

THE NORTH-WEST AND AGRICULTURAL SETTLEMENT.

COMMITTEE ROOM, HOUSE OF COMMONS,

Monday, April 3rd, 1876.

Honourable JOHN SUTHERLAND, Senator, of Kildonan, Manitoba, appeared before the Committee, and, in answer to questions, said :

I have been in the North-West all my life. I was born within the corporation of Winnipeg. My age is fifty-three years. I am a practical farmer.

From my long experience there, and from what I have seen in other Provinces, I have come to the conclusion that the soil, climate and other natural advantages of Manitoba are conducive to successful farming, and that a poor man can more easily make a living there than in other parts of the Dominion.

The usual depth of alluvial deposit on the prairie is about two and a half feet, and on bottom lands from two and a half to twenty feet. The natural grasses are very nutritious, and cattle can be wintered without any coarse grain, neither is it customary to feed any grain except to milch cows or stall-fed animals.

The usual yield of prairie grass when cut into hay is an average of from three to four tons per acre. It usually grows about five or six feet high, and, although coarse, is very nutritious.

I consider the North-West as very well adapted for dairy purposes, as we have many miles of natural meadows throughout the country, and hay can be cut and cured for about \$1 per ton. We

have five or six varieties of grasses that are good and well adapted for stock feeding, while a few others are not so suitable.

We have occasional frosts; generally one frost about the first of June, but seldom severe enough to do any material injury to the growing crops, and showers are frequent during spring and summer. The average depth of snow throughout Manitoba is about 20 inches, and is quite light and loose.

I would consider it advantageous for a farmer to take improved stock, but not agricultural implements, as they can be procured there at a reasonable rate. They are partly procured from the United States and partly from Ontario. I think the grade cattle might be got in cheaper from Minnesota than from Ontario.

In many parts of the Province there are natural springs and creeks on the surface, and good water can be obtained by digging about twelve feet, while in other parts it may be necessary to dig some fifty or sixty feet. I recollect only two seasons which were very dry, but not so much so as to prevent having fair average crops, and in the absence of showers there is sufficient moisture in the earth to render the soil productive.

The frost penetrates in exposed places to the depth of from three to four feet, that is, where the earth is not covered at all with snow. Where it is covered with snow it is seldom frozen deeper than eighteen inches. Vegetation begins and progresses before the frost is all out of the ground, and we generally begin sowing when it is thawed to the depth of six inches, at which time the surface is perfectly dry. We believe this frost helps the growth of crops, owing to the heat of the sun by day causing a continual evaporation from the underlying strata of frost.

I consider the country healthy, and we have not been subject to any epidemic. We had fever in Winnipeg in 1875, but none in the country places. It was brought into Winnipeg, and it owed its continuance there, no doubt, to overcrowded houses and insufficient drainage. We never had small-pox in our Province. As a rule, I think the country is very healthy.

The average yield and prices of grain are as follows:—

Wheat, about 30 bushels per acre, price	\$1.00.
Oats, " 40 " "	30c. to 40c.
Barley, " 35 " "	60c. to 70c.
Peas, " 50 " "	60c. to 70c.

The soil and climate are well adapted for growing root crops. Our potatoes are pronounced the best in the world. Indian corn is not extensively cultivated, and I think the large kind could not be cultivated to advantage, but the smaller kind might, and I think could be profitably grown.

We have had a ready home market for the last fifteen years for all our surplus produce, consequently we have not exported any farm produce.

I think that extensive settlement will prevent the ravages of the grasshoppers, and we have good reason to believe that we will be exempt from them during the coming season, as there were no deposits of eggs in the Province in 1875, and in all probability we will be relieved from that plague for many years to come. To my own knowledge the Province was not affected by grasshoppers for forty years previous to 1867, since which date we have had them off and on about every two years, or each alternate year.

The fences are composed of posts of spruce and poplar, the latter of which, with the bark removed, will last twenty years. Pine and basswood lumber are also used, the former being from \$20 to \$60 per thousand feet.

Poplar and oak are chiefly used, and are in sufficient quantity to supply the present demand, but I fear there is not enough to supply a very large population, in which case there might be a scarcity of hard wood, but plenty of poplar and tamarac, the former of which is reproduced very rapidly. Coal is not known to exist in the Province of Manitoba, but is said to be found about thirty miles west of the boundary of the Province.

It is customary to plough in the fall, but I have generally found it necessary to cultivate the soil in the spring before sowing, to prevent the growth of weeds.

I consider Manitoba adapted to sheep-raising, and from my experience I have found it profitable.

I have raised sixty bushels of spring wheat per acre, weighing sixty-six pounds per bushel, the land having been measured and the grain weighed carefully. I have also received reliable information to the effect that seventy (70) bushels of wheat have been produced from one bushel sown.

It is my opinion, in the event of a considerable immigration going into the Province of Manitoba, and also into the North-West Territories, that those immigrants will in the first instance be consumers, at all events for the first year after their arrival; and if, as I hope, the construction of the Canada Pacific Railway is carried on, I do not doubt that these circumstances combined will absorb our surplus produce until we shall have an outlet for exportation. I may also add that the fur trade has, for many years, consumed a large proportion of our surplus produce, and I expect it will continue to do so for years to come in the North-West Territories.

CHAPTER IV.

NORTH-WEST TERRITORY.

PROFESSOR MACOUN'S EVIDENCE.

OBSERVATIONS IN THE NORTH-WEST AND PEACE RIVER DISTRICT,

COMMITTEE ROOM, HOUSE OF COMMONS,

Friday, March 24th, 1876.

Professor JOHN MACOUN, of Albert University, Belleville, appeared before the Committee and, in answer to questions, said :—

A continuous farming country extends from Point du Chien to the Assiniboine, at Fort Ellice, a distance of 230 miles, without a break. Beyond this there are twenty-five miles of dry, gravelly ground, of little account for anything except pasture. Then follows a very extensive tract of country stretching westward to the South Saskatchewan and extending indefinitely north and south. This wide region contains many fine sections of rich fertile country, interspersed with poplar groves, rolling, treeless prairie, salt lakes, saline and other marshes, and brackish or fresh water ponds. What is not suited for raising cereals is excellent pasture land. Only a few of the salt lakes would be injurious to cattle or horses; and fresh water can be obtained without doubt a little below the surface.

The soil of this whole region is a warm, gravelly or sandy loam. The surface soil, to a depth of from one to three feet, is a brown or black loam. The subsoil, being generally either sand or gravel, consisting principally of limestone pebbles; many boulders are found in some sections. The land between the two Saskatchewan is nearly all good. Prince Albert Mission settlement is situated in this section. At Carleton I crossed the North Saskatchewan, and therefore know nothing personally of the immense region extending west and south thence to the Boundary. All accounts, however, agree in saying it is the garden of the country. Good land, generally speaking, extends northward to Green Lake, a distance of 170 miles from Carleton. How much further eastward this good land extends I am unable to state; but Sir John Richardson says that wheat is raised without difficulty at Cumberland House. The good arable land is about twenty-five miles wide at Edmonton, but possibly not so wide at Fort Pitt, more to the east, but further north. This region is bounded on the south by the North Saskatchewan, and on

the north by the watershed between it and the Beaver and Athabasca Rivers. Within this area there are five settlements where wheat is raised regularly without difficulty, viz: the Star Mission, (Church of England,) sixty miles north of Carleton on the Green Lake Road; Lac La Biche Mission, (R. C.), 100 miles from Fort Edmonton; Victoria Mission, (Wesleyan,) eighty miles east of Edmonton, and St. Albert Mission, (R. C.), nine miles north of Edmonton, and at Edmonton itself. Edmonton seems to be the coldest point in the district in question, and suffers most from summer frosts.

Next is a very extensive district forming the watersheds between the Saskatchewan and Peace Rivers, and through which the Athabasca River flows for its whole course, and from which it receives its waters. This region is all forest, and consists of muskeg (swamp) spruce and poplar forest. Very little is known of this region, but the soil where I crossed it is generally good where not swampy. West of Edmonton, where the railway crosses the section, there is said to be much swamp, but between Fort Pitt and the Forks of the Athabasca there is scarcely any swamp, although it is nearly all forest.

Next comes the Peace River section extending along the Rocky Mountains from a little north of Jasper's House to Fort Liard, Lat. sixty-one north; and from the former point to the west end of Little Slave Lake; thence to the Forks of the Athabasca, and down that River to Athabasca Lake, and from thence to Fort Liard. The upper part of this immense area is principally prairie, extending on both sides of the Peace River. As we proceed to the north and east, the prairie gradually changes into a continuous poplar forest with here and there a few spruces, indicating a wetter soil. The general character of this section is like that of Manitoba west from Portage La Prairie to Pine Creek.

Wheat was raised last year at the Forks of the Athabasca, at the French Mission, (Lake Athabasca,) at Fort Liard, and at Fort Vermillion in this section.

The following observations and extracts will speak for themselves. I was on Peace River during the whole month of October, 1872; part of my work was to note the temperature, which I did with care. The average reading of the thermometer, at eight o'clock p. m., for the ten days between the 10th and 19th October, was $42\frac{1}{2}^{\circ}$ in Lat. 56° , while at Belleville, Ontario, in Lat. 44° , it was only $46\frac{1}{2}^{\circ}$ at 1 p. m., being only 4° higher with a difference of 12° in Latitude. (For details see Pacific Railway Survey Report for 1874, page 96).

Captain Butler passed through the same region in the following April, and states that the whole hillside was covered with the blue

anemone (*Anemone patens*) on the 22nd of April. See Wild North Land.

Daniel Williams (Nigger Dan,) furnished the following extracts from his notebook:

"1872.

"Ice began to run in river November 8th.

"River closed November 28th.

"First snow October 28th.

"1873.

"April 23rd, ice moved out of river.

"Planted potatoes April 25th.

"First permanent snow November 2nd.

"River closed November 30th.

"1874.

"River broke up 19th April.

"First geese came 21st April.

"Sowed barley and oats April 22nd.

"River clear of upper ice May 3rd."—N. B. Upper ice from above the Rocky Mountain Canyon.

"Planted potatoes May 5th.

"Potatoes not injured by frost until 22nd September. Then snow fell which covered them, but soon went off. Dug over 100 bushels from one planting." This is possibly too large.—J. M.

"Ice commenced to run in river October 30th.

"River closed November 23rd.

"Snowed all night November 4th.

"1875.

"Ice broke up in river April 15th.

"Warm rains from north-west; blue flies and rain, February 18th.

"Ice cleared out in front of Fort, April 16th.

"Potatoes planted 8th, 9th and 10th May.

"Barley and oats sown May 7th.

"Snow all gone before the middle of April. This applies to both the river valley and the level country above." Difference in level 746 feet.

The potatoes were dug out in quantities, and were both large and dry. On the 2nd August, seventeen men got a week's supply at this time. These men were traders from down the river who depended on their guns for food. The barley and oats were both ripe about the 12th August. (Both on Exhibition at Philadelphia).

Extract from the Hudson Bay Company's Journal, Fort St. John, Peace River, for a series of ten years. Lat. $56^{\circ} 12'$ North. Long. 120° west. Altitude above the sea, nearly 1,600 feet.

Opening of River.		First ice drifting in river.	
1866—	April 19	November	7
1867—	do 21	do	3 or 8
1868—	do 20	do	7
1869—	do 23	do	8
1870—	do 26	do	No record.
1871—	do 18	do	10
1872—	do 19	do	8
1873—	do 23	do	4
1874—	do 19	October	31
1875—	do 16		

In a pamphlet published by Malcolm McLeod, Esq., in the year 1872, he shows that the summer temperature at Dunvegan, 120 miles farther down the river, is about half a degree less than that of Toronto, the one averaging $54^{\circ} 14'$ and the other $54^{\circ} 44'$.

At Battle River, over 100 miles further down, Indian corn has ripened three years in succession, and my observations tend to show that the summer temperature at this point is greater than it is higher up.

At Vermillion, Lat. $58^{\circ} 24'$, I had a long conversation with old Mr. Shaw, who has had charge of this Fort for sixteen years; he says the frosts never injure anything on this part of the river, and every kind of garden stuff can be grown. Barley sown on the 8th May, cut 6th August, and the finest I ever saw. Many ears as long as my hand, and the whole crop thick and stout. In my opinion this is the finest tract of country on the river. The general level of the country is less than 100 feet above it.

At Little River I found everything in a very forward state. Cucumbers started in the open air were fully ripe; Windsor, pole beans and peas were likewise ripe, August 15th. Fort Chipweyan, at the entrance to the Lake Athabasca, has very poor soil in its vicinity, being largely composed of sand; still, here I obtained fine samples of wheat and barley—the former weighing 68 lbs. to the bushel, and the latter 58 lbs. The land here is very low and swampy, being but little elevated above the lake. At the French Mission, two miles above the Fort, oats, wheat and barley were all cut by the 26th August. Crop rather light on the ground.

Mr. Hardisty, Chief Factor in charge of Fort Simpson, in Lat. $61^{\circ} N.$, informed me that barley always ripened there, and that wheat was sure four times out of five. Melons if started under glass ripen well. Frost seldom does them much damage.

Chief Trader Macdougall says, that Fort Liard, in Lat. $61^{\circ} N.$, has the warmest summer temperature in the whole region, and all kinds of grain and garden stuff always come to maturity. He has

been on the Yucon for twelve years, and says that most years barley ripens under the Arctic Circle in Long. 143° W.

The localities mentioned were not chosen for their good soil, but for the facilities which they afforded for carrying on the fur trade, or for mission purposes. Five-sixths of all the land in the Peace River section is just as good as the points cited, and will produce as good crops in the future. The reason so little is cultivated is owing to the fact that the inhabitants, whites and Indians, are flesh-eaters. Mr. Mactarlane, Chief Factor in charge of the Athabasca District, told me that just as much meat is eaten by the Indians when they receive flour and potatoes as without them.

At the Forks of the Athabasca, Mr. Moberly, the gentleman in charge, has a first-class garden, and wheat and barley of excellent quality. He has cut an immense quantity of hay, as the Hudson Bay Co. winter all the oxen and horses used on Methy Portage at this point. He told me that in a year or two the Company purposed supplying the whole interior from this locality with food, as the deer were getting scarce and supplies rather precarious. This is the identical spot where Mr. Pond had a garden filled with European vegetables when Sir Alexander Mackenzie visited it in 1787.

The following extracts are from Sir Alexander Mackenzie's travels. He passed the winters of 1792 and 1793 near Smoky river, and writes as follows:—"November 7th. The river began to run with ice yesterday, which we call the last of navigation. On the 22nd the river was frozen across, and remained so until the last of April." Between the 16th November and the 2nd December, when he broke his thermometer, the range at 8.30 a.m. was from 27° above to 16° below zero; at noon the range was from 29° above to 4° below; and at 6 p.m. it was from 28° above to 7° below. "On the 5th January, in the morning, the weather was calm, clear and cold, the wind blew from the south-west, and in the afternoon it was thawing. I had already observed at the Athabasca that this wind never failed to bring us clear, mild weather, whereas when it blew from the opposite quarter it produced snow. Here it is much more perceptible, for if it blows hard from the south-west for four hours a thaw is the consequence. To this cause may be attributed the scarcity of snow in this part of the world. At the end of January very little snow was on the ground, but about this time the cold became very severe, and remained so to the 16th March, when the weather became mild, and by the 5th April all the snow was gone. On the 20th the gnats and mosquitoes came, and Mr. Mackay brought me a bunch of flowers of a pink colour and a yellow button (*Anemone patens*), encircled with six leaves of a light purple. On the other side of the river, which was still covered with ice, the plains were delightful—the trees were budding, and many plants in blossom. The change in the

appearance of the face of Nature was as sudden as it was pleasing, for a few days only were passed away since the ground was covered with snow. On the 25th the river was cleared of the ice."

I consider nearly all the Peace River section to be well suited for raising cereals of all kinds, and at least two-thirds of it fit for wheat. The soil of this section is as good as any part of Manitoba, and the climate if anything is milder.

The Thickwood country, drained by the Athabasca, has generally good soil, but it is wet and cold. At least one-half is good for raising barley and wheat, while much of the remainder would make first-class pasture and meadow lands.

I am not so well acquainted with the Saskatchewan section, but from what I know of it, it has generally good soil and a climate not unsuitable for wheat raising. Between Fort Pitt and Edmonton there is a tract which I consider subject to summer frosts, but it would produce immense crops of hay. This district is the only dangerous one in the Saskatchewan country.

Of the high country between the South Saskatchewan and Manitoba, and south to the boundary, I know but little. If it could be shown that summer frost did no injury in the region in question, I could say that from its soil and vegetation the greater part would produce wheat. At all events barley and peas will be a sure crop. I cannot speak decidedly of this large area, as from its exposed position and height from the sea, there is a danger of injury to the crops from frosts. The future will decide the point.

Q. Referring to the cultivable parts of the central or prairie regions between the Province of Manitoba and the Rocky Mountains, can you state whether there are early or summer frosts, which would be likely to prove detrimental to the cultivation of wheat?

A. In answering the last question, I stated that I could not be certain from my own observations, but I incline to the opinion that many large areas will be found altogether free from frosts, while others will be injured by them. While crossing the Plains with Mr. Fleming in August, 1872, the thermometer fell to 30° on the morning of the 14th, and ice was formed in some of the vessels, but I saw no injury done to vegetation. This was about ninety miles east of the South Saskatchewan. Captain Palliser records the thermometer falling below freezing point on the 14th August, 1857, in the neighbourhood of Fort Ellice, but vegetation did not seem to suffer. It seems that the first frost to do any injury comes about the 20th of this month, and that it is just as likely to affect Manitoba as the country further west.

I have noticed the large claims, as respects the yield of wheat in the valley of the Red River, advanced, but doubt their accuracy. From what I could learn, I should think thirty-five bushels per acre as pretty near the average. Cultivation like that of Ontario would

give a much greater yield, as there are more grains to the ear than in Ontario. The grain is heavier. Peas will always be a heavy crop in the North-West, as the soil is suitable, and a little frost does them no harm.

All my observations tended to show that the whole Peace River country was just as capable of successful settlement as Manitoba. The soil seems to be richer—the country contains more wood; there are no saline marshes or lakes; the water is *all* good—there are no summer frosts—spring is just as early and the winter sets in no sooner. The winter may be more severe; but there is no certainty of this.

I would not advise any attempt to settle this region until after the settlement has extended at least to Edmonton, as there is at least 150 miles of broken country between the two.

From my former answers it will be seen that about the 20th of April ploughing can commence on Peace River, and from data in my possession the same may be said of the Saskatchewan regions generally.

It is a curious fact that spring seems to advance from north-west to south-east, at a rate of about 250 miles per day, and that in the Fall winter begins in Manitoba first and goes westward at the same rate.

The following data selected from various sources will throw considerable light on the question of temperature. It is worthy of note that Halifax on the sea coast is nearly as cold in spring and summer as points more than twelve degrees further north.

Spring, summer and autumn temperature at various points, to which is added the mean temperature of July and August, *the two ripening months*.

	Latitude north.	Summer.	Spring.	Autumn.	July and August.
Cumberland House.....	53.37	62.62	33.04	32.70	64.25
Fort Simpson.....	61.51	59.48	26.66	27.34	62.31
Fort Chipewyan	58.42	58.70	22.76	31.89	60.60
Fort William.....	48.24	59.94	39.67	37.80	60.52
Montreal.....	45.31	67.26	39.03	45.18	68.47
Toronto.....	43.40	64.43	42.34	46.81	66.51
Teniscamingue.....	47.19	65.23	37.58	40.07	66.43
Halifax.....	44.39	61.00	31.67	46.67	66.55
Belleville.....	44.10	temperature nearly that of Toronto.			
Dunvegan, Peace River.	56.08	average summer six months			54.44
Edmonton.....	53.31		39.70		
Carleton.....	52.52		35.70		
Winnipeg.....	49.52	64.76	30.13	35.29	65.32

Any unprejudiced person making a careful examination o

above figures will be struck with the high temperatures obtained in the interior. Edmonton has a higher spring temperature than Montreal, and is eight degrees farther north and over 2,000 feet above the sea. The temperatures of Carleton and Edmonton are taken from Captain Palliser's explorations in the Saskatchewan country, during the years 1857 and 1858. It will be seen that the temperatures of the months when grain ripens is about equal throughout the whole Dominion from Montreal to Fort Simpson north of Great Slave Lake.

The country, in my opinion, is well suited for stock-raising throughout its whole extent. The winters are certainly cold, but the climate is dry, and the winter snows are light, both as to depth and weight. All kinds of animals have thicker coats in cold climates than in warm ones, so that the thicker coat counter-balances the greater cold. Dry snow never injures cattle in Ontario. No other kind ever falls in Manitoba or the North-West, so that there can be no trouble from this cause. Cattle winter just as well on the Athabasca and Peace Rivers as they do in Manitoba; and Mr. Grant, who has been living on Rat Creek, Manitoba, for a number of years, says that cattle give less trouble there than they do in Nova Scotia. Horses winter out without feed other than what they pick up, from Peace River to Manitoba. Sheep, cattle, and horses will require less attention and not require to be fed as long as we now feed them in Ontario. Owing to the light rain-fall the uncut grass is almost as good as hay when the winter sets in, which it does without the heavy rains of the east. This grass remains good all winter as the dry snows does not rot it. In the spring the snow leaves it almost as good as ever, so that cattle can eat it until the young grass appears. From five to six months is about the time cattle will require to be fed, and shelter will altogether depend on the farmer.

Q. Could, in your opinion, the arid portion of the Central Prairie region, and particularly that part supposed to be an extension of the "American Desert," be utilized for sheep grazing or any other agricultural purpose?

A. Laramie Plains, in Wyoming Territory, are spoken of by all American writers as eminently fitted for sheep and cattle farming, and our extension of the "Desert" has, from all accounts, a better climate—is at least 4,000 feet lower in altitude, and from the able Reports of Mr. George Dawson (1874,) and Captain Palliser (1858,) I am led to infer that our part of the "Desert," besides being first-class pasture land, contains many depressions well suited for raising all kinds of grain. Mr. Dawson specially remarks that its soil is generally good, but that the rain-fall is light. Speaking of the worst part, he says: "It scarcely supports a sod," but this tract is not fifty miles wide. This is the winter home of the buffalo, and hence cattle and sheep can live on it in the winter without difficulty. I have seen

the Laramie Plains and the cattle upon them—I have examined the flora of both regions, and believe ours is warmer in winter and certainly not so dry in summer.

Mr. George Dawson speaking of this region says: "In July, of last summer (1873,) I saw a band of cattle in the vicinity of the Line south of Wood Mountain, which had strayed from one of the United States forts to the south. They were quite wild, and almost as difficult of approach as the buffalo; and notwithstanding the fact that they had come originally from Texas, and were unaccustomed to frost and snow, they had passed through the winter and were in capital condition." Comment is unnecessary.

Whatever desert region there is, lies between the Souris and the Milk River on the boundary, and the Qu'Appelle and South Saskatchewan on the north.

Q. Is there any other wood than poplar in the Peace River country?

A. Five-sixths of all the timber is poplar, and is invariably a sign of dry soil and good land. Balsam poplar is very abundant on the islands in all the north-western rivers, often attaining a diameter of from 6 to 10 feet, even as far north as Fort Simpson. White spruce grows to a very large size on all the watersheds and the slopes of the south bank of the Peace River, on islands in all the rivers, and very abundantly on the low lands at the west end of Lake Athabasca. I have often seen it over three feet in diameter, but the usual size is from one to two feet. Banksian pine was not observed on Peace River, but it occurs at Lake Athabasca, and is abundant as you approach the Saskatchewan from the north. Its presence indicates sandy soil unfit for cultivation.

White birch is not abundant along the Peace River, but is common on the Athabasca and Mackenzie Rivers. The Northern Indians make large quantities of syrup from its sap in spring.

These are the most important trees. There are no beech, maple, ash, oak, elm, white or red pine in the country.

Q. What fruits grow spontaneously in the Peace River country and Athabasca regions?

A. The berry of the *Amelanchier Canadensis* (Service Berry of Canadians, Poires of the French Half-breeds and Sas-ka-tum berries of the Indians) is collected in immense quantities on the Upper Peace River, and forms quite an article of food and trade. When I was at Dunvegan last summer the Indians and Half-breeds were camped out collecting the berries which were then in their prime (August 6th.) Bears are very fond of them, and resort to the sunny slopes of the Peace River at this time in great numbers to feed upon the berries. The Indian women press them into square cakes while fresh, and then dry them for future use, but those intended for the Hudson Bay

Company's post are dried in the sun and mixed with dry meat and grease to form pemmican, or are fried in grease for a *dessert*.

Strawberries and raspberries are very abundant in most districts on Peace River, especially at Vermillion.

Another raspberry (*Rubus Arcticus*), of an amber colour, is very abundant at Lake Athabasca and up around Portage La Loche and the Valley of the English River. Its fruit is converted into jellies and jams, and gives a relish to many a poor meal.

High bush cranberries (*Viburnum pauciflorum* and *Opulus*) are very abundant in the wooded districts on both sides of the Athabasca and Clear-water rivers and around Lake Athabasca.

Gooseberries and currants of many species are found, but are not much sought after. Blueberries, low bush cranberries, and the cowberry (*Vaccinium Vitis Jolea*), are abundant in particular localities in the above district. Two species of cherries—the bird cherry and the choke cherry—complete the list.

The Peace River is navigable from the Rocky Mountains for at least 500 miles by river,—in none of this distance is it less than six feet deep. A canal of two miles would overcome the obstructions at this point. For two hundred and fifty miles below this there is no obstruction except a rapid, which I think is caused by boulders in the channel. Their removal would probably overcome the difficulty.

The Athabasca is navigable for one hundred and eighty miles above Lake Athabasca. Mr. Moberly, an officer in the Hudson Bay Company's service, sounded it all the way from Fort McMurray, at the Forks of the Clear-water and the Athabasca, to Lake Athabasca, and no spot with less than six feet at low water was found. Between Lake Athabasca and the Arctic Ocean only one break exists, but this is fourteen miles across by land; after that is overcome, 1,300 miles of first-class river navigation is met with, which takes us to the ocean.

The Hudson Bay Company purpose opening a cart road from Fort Pitt on the Saskatchewan to the Forks of the Athabasca, and contemplate having a steamboat on the Athabasca and the Peace and Slave Rivers. By this means ingress and egress will be obtained, and their goods will be more easily distributed to distant points. This road will be made and the steamer built in time for the trade of 1877.

The moose is still abundant on both sides of the Peace River, and the wood buffalo is still found between the Athabasca and the Peace River about lat. 57°. From five hundred to one thousand head is the estimate of the hunters. Black bears are very numerous on the upper part of Peace River, and furnish the chief food of the people in July and August. Cariboo are north and east of Lake

Athabasca, and are the chief food of the Indians and Half-breeds of that region. Rabbits are in immense numbers wherever there is timber, and are easily taken. Waterfowl are beyond computation, during September, in the neighbourhood of Lake Athabasca, and large flocks of Canada geese are found on Peace River all summer. Lynx, beaver, martin and fox make up the chief fur-bearing animals.

Large deposits of coal have been observed, by Mr. Selwyn, on the Saskatchewan, between the Rocky Mountain House and Victoria, a distance of 211 miles. He speaks in one place of having seen seams 20 feet thick, and in his report for 1873 and 1874, he gives a photograph, on page 41, of this seam.

Rev. Mr. Grant, in "Ocean to Ocean," speaks of a seam of coal on the Pembina River—a tributary of the Athabasca—ten feet thick, and from which they brought away specimens that were afterwards analysed by Professor Lawson, and found to contain less than 3 per cent. of ash.

While on my trip to Peace River, in company with Mr. Horetzky in the fall of 1872, I discovered coal in large quantities in the bank of one of the rivers which flow into Little Slave Lake. It was also seen in small quantities in a number of other localities in the vicinity of the Lake. It is also reported from the upper part of Smoky River, and I have seen it in small quantities on the upper part of Peace River and its tributaries on the right bank. I observed no indications of coal below Smoky River, but Sir John Richardson speaks of lignite being abundant on the Mackenzie.

Clay ironstone is associated with the coal wherever it has been observed, although possibly not in paying quantities. Coal, then, and ironstone may be said to extend almost all the way from the boundary to the Arctic Ocean. Gypsum of the very best quality, and as white as snow, was seen at Peace Point on Peace River, and for a distance of over 20 miles it extended on both sides of the river, averaging 12 feet in thickness. Sir John Richardson says in his "Journal of a Boat Voyage to the Arctic Ocean," Vol. I, page 149, that he found this same gypsum associated with the salt deposits on Salt River, about 70 miles N.N.E. from Peace Point, and he infers that the country between is of the same character.

Sir John examined the salt deposits at Salt River and found that they were derived from the water of salt springs, of which he found a number flowing out of a hill and spreading their waters over a clay flat of some extent. The evaporation of the water leaves the salt incrusting the soil, and in some places forming mounds out of which the purest salt is shovelled.

For many miles along the Athabasca below the Forks there are outcrops of black shale from which liquid petroleum is constantly

oozing. At various points, at some distance from the immediate bank of the river, there are regular tar springs from which the Hudson Bay Company get their supply for boat building and other purposes. The tar is always covered with water in these springs, and something like coal oil is seen floating on this water. Besides those mentioned other springs are known to exist on the Clear-water, a tributary of the Athabasca, and on Peace River, near Smoke River, and Little Red River on the same stream. Sulphur springs are frequent on the Clear-water, and large metalliferous deposits are said to exist near Fond du Lac on the north shore of Lake Athabasca. Gold is found in small quantities on the upper Peace River, but it is of very little account. Immense quantities of first-class sandstone occur for over 300 miles along Peace River, and other minerals will be discovered when the country is better known.

Grasshoppers from their very nature cannot be yearly visitors, but are almost certain to be occasional ones. It seems to be a law that insect pests eventually *breed* their own destruction. This seems to have been *their* history in the past, and I believe will be the same in the future. A few reached the South Saskatchewan in 1875, but none have ever been seen on Peace River. Owing to the belt of timber which intervenes between it and the Saskatchewan, they can never injure that fine country, nor will they ever do much damage in the Saskatchewan country, as they are likely to move towards the east and north, which takes them away from it. I know of no mode of prevention except tree planting, which will be at best a slow process.

At six points in the Peace River country, I made a section by enumerating all the flowering plants in the vicinity. These points were Hudson's Hope, just east of the mountains; St. John's, 60 miles below; Dunvegan, 120 miles further down; then Vermillion, about 300 miles lower down, then Little Red River, 100 miles further down, and lastly at Lake Athabasca. As will be seen, the flora of the whole river is much like that of Central Ontario, and of the prairie region, It may be as well to remark that we can only deduce the temperature of the growing season from the vegetable productions. The following table gives the result of a botanical examination in a very condensed form:—

	Total.	Belleville.	Quebec.	West of Mountains.	Western Plains.
Hudson's Hope.....	211	136	7	17	51
St. John.....	248	161	3	6	78
Dunvegan	246	160	2	5	79
Vermillion.....	159	112	2	1	44
Little Red River.....	128	88	1	0	39
Lake Athabasca.....	245	186	7	2	50

The only plants that show any signs of a boreal climate are those from Quebec. The two at Vermillion were Yellow Rattle (*Rinanthus Cristagalli*) and High Bush Cranberry (*Viburnum pauciflorum*). The most prominent feature in the whole region was a richness in the soil and rankness in the vegetation never seen in Ontario.

Where Peace River leaves the mountains, it is at least 800 feet below the level of the plain. At Fort Chipewyan, on Lake Athabasca, the country is on a level with the water.

CHAPTER V.

PRACTICAL FARMING IN THE NORTH-WEST.

MR. KENNETH MACKENZIE'S STATEMENTS.

The following questions and answers contain a report of the experience of Mr. Kenneth Mackenzie, a farmer, who emigrated from the Province of Ontario and settled in Manitoba. Mr. Mackenzie wrote the answers in 1873, to questions sent to him to obtain the information he has given:—

Question.—How long have you been a resident of Manitoba?

Answer.—Four years.

Q. From what part of Ontario or the old country did you come?

A. Scotland, in 1842, then twenty years of age; lived in Puslinch, County of Wellington, twenty years.

Q. How many acres of land have you under cultivation at the present time?

A. One hundred and forty under crop, and about sixty more broken this summer. We plough the first breaking two inches deep, and the next spring or fall plough it a second time, and turn up two inches more.

Q. Is it broken from bush or prairie land?

A. Prairie.

Q. What is the quality of the soil, and of what does it consist?

A. Around Fort Garry to Poplar Point rather clayey with rich alluvial soil above; from Poplar Point west, clay loam with fine alluvial soil above, but in several places sand loam. There are to the south-west of here places too sandy for good farming land.

Q. Do you consider it good agricultural productive soil?

A. I never saw better, except that which is too sandy. There are settlers north-west from here for fully thirty miles, and although newly settled, they have good, fair crops, and no grasshoppers.

Q. Is prairie hard to break?

A. When the summer is wet or moist I would sooner break it than old spear grass sod, as we do not require to break so deep.

Q. What month do you consider best to break it in?

A. June and July, but earlier will do if you have time, as later does not answer so well.

Q. What kind of a plough do you use for breaking?

A. American, made by John Deen Moline, but other Americans make good breaking ploughs—light with gauge wheel in front, and revolving coultermould boards and coulter and shear, all steel. No use for any other material here in ploughs but steel. The soil is rich and very adhesive, and even to steel it will stick a little in wet weather, more so after it is broken and cultivated.

Q. What kind, and whose make, of a plough do you consider best adapted both for breaking and after ploughing?

A. The American ploughs answer for both at present. I have a Canadian plough which does very well, but I think a good light Canadian, all steel, or even glass mould-board, would be better after the land begins to be old or long broken. We cannot go deep enough with the American ploughs when land is getting old and needy.

Q. How many horses or oxen do you use with each plough when breaking the prairie?

A. On a twelve inch breaker, we use one pair horses, or one yoke oxen. When sixteen-inch, we use three horses or two yoke oxen. I prefer twelve-inch ploughs to larger ones.

Q. How many acres will a good team break in a day?

A. About one acre is a fair day's work, *i. e.*, day after day. Some, of course will do more. The large plough and more team will break one and a-half acres.

Q. How many ploughings do you give the land before cropping, and at what time?

A. Two ploughings for first crop answers best, *i. e.*, one light or two inch in summer, and then two inches more, stirred up, next spring; we plough both times same way, and not cross the first breaking. I have raised potatoes and turnips last year on first breaking; had a fair crop, but would not like to depend on it if the season was dry.

Q. What crops do you grow most extensively?

A. This year, spring wheat, ninety acres; barley, thirty acres; oats, 1 acre; peas, eight acres; rye, one acre; flax, $\frac{1}{2}$ acre; potatoes,

six acres; the rest, roots of various kinds, and clover and timothy.

Q. What kinds of fall wheat do you grow?

A. I have tried fall wheat, but do not consider it a profitable crop to raise here at present.

Q. How many bushels do you sow per acre?

A. About two bushels per acre.

Q. What is the average yield per acre, one year with the other?

A. Fully thirty bushels; I have had over forty.

Q. Does Indian corn grow well, and yield a good crop?

A. It does not mature very well. They have a small kind that ripens, but I do not like it.

Q. What kind of barley do you grow?

A. Common four rowed, but think any variety will do well.

Q. How many bushels do you sow per acre?

A. About two bushels.

Q. What is the average yield per acre?

A. About thirty-five bushels, but I have seen over fifty per acre.

Q. What kind of peas do you grow?

A. Russian blue and small white peas.

Q. How many bushels do you sow per acre?

A. A little over two.

Q. What is the average yield?

A. I think this year about twenty or twenty-five per acre; my land being new till this year, they did not do so well.

Q. What kind of oats do you grow?

A. Black oats.

Q. How many bushels do you sow per acre?

A. Two bushels.

Q. What is the average yield of bushels?

A. I have but little, but I see fields from here to Poplar Point I think will yield from forty-five to sixty per acre.

Q. Do timothy and clover grow successfully?

A. I have had both do well; but timothy seems to do best.

Q. Do rye and flax grow successfully?

A. Rye is a fair crop, and flax I never saw better.

Q. How are the soil and climate suited to growing root crops?

A. All kinds of roots and vegetables that I have raised each year have done very well.

Q. Are these crops troubled with flies and insects as in Ontario?

A. I have heard some complain of grubs, but have not suffered any by them on my crops, and I have sown turnips in May and they did well, and all through June, and no flies to hurt.

Q. Has your settlement been troubled by the grasshoppers?

A. Not since I have been here. I am eight miles west of Portage la Prairie, and no settler was before me west of the Portage.

Poplar Point is about twenty-five miles east of here, or seventeen from Portugal.

Q. How many times have the crops been destroyed or injured by them; at what season do their ravages generally commence; and how long do they generally continue?

A. In 1868 they destroyed all from Portage at that time to Fort Garry, and all settled. This year they destroyed all down on Red River or around Fort Garry, and partially up the Assiniboine River, up to Poplar Point, but no farther. There are several fair crops in Headingley and White Horse Plains, *i.e.*, half way between Poplar Point and Fort Garry.

Q. Do you think that this plague will continue when the country is better settled and more land cultivated?

A. I cannot positively say, but think their ravages are partial. Some may suffer, while others escape. They only made three clear sweeps, I am told, since 1812, when the country was first settled, and then all the portion that was settled was a small spot round Fort Garry. Rev. Mr. Nesbitt had a good crop in Prince Albert Mission, Saskatchewan, in 1868.

Q. Are there any crops that they do not destroy?

A. They are not so bad on peas as on other crops.

Q. Are the grasshoppers the only plague that you have been subjected to since settling in the Province?

A. I have not suffered any as yet from grasshoppers. Black birds were very bad at first, especially on oats, and that is the reason I had no more sown this year. I have not seen one-fifth so many this year as before. I intend, if spared, to sow more oats in future.

Q. How do the seasons correspond with ours in Ontario?

A. Fall and spring are drier. About the middle of April, spring commences generally; but I sowed wheat this year on the 3rd of April, and ploughed in 1870 on the 5th of April.

Q. Is the snow melted by the sun, wind or rain?

A. Nearly all goes with the sun.

Q. Have you much rain during the spring?

A. Very little till May, June and July.

Q. What time does the frost leave the ground?

A. About the 20th of April; in places it may be longer.

Q. Have you much frost after growth commences?

A. I have seen a little in May, but I have not had any of my crops injured by frost since I came to Manitoba.

Q. How soon may ploughing and sowing be done?

A. You may sow as soon as the ground is black or snow off. The frost was not three inches out when I sowed my first wheat; I have it stacked now and a good crop.

Q. Is the summer different from ours in Ontario?

A. Generally rather drier and vegetation more rapid.

Q. Have you showers during May, June and July, and have you heavy dews at night?

A. Yes.

Q. Is growth as rapid as in Ontario?

A. I think more so.

Q. Have you any summer frosts?

A. None whatever since I have been here to injure crops.

Q. When do you generally cut your hay?

A. From 15th July to 15th September.

Q. Does wheat, barley, and oat harvest commence later or earlier than in Ontario?

A. Later; generally about first week in August.

Q. Is the fall early, wet or dry?

A. Early; generally dry.

Q. What date do frosts generally commence?

A. First of the season, about 8th or 10th September, but fine weather after.

Q. When does the winter commence; how soon is the ground frozen, and when does snow fall?

A. Generally frozen about 10th or 12th November; snow about 1st December. Some seasons are earlier; others later.

Q. Have you deep snow early in or during the winter?

A. First three winters snow would average from 16 to 20 inches; last winter 10 inches. The frost is generally a steady freeze.

Q. Have you many severe drifting snow storms?

A. Not any more than in Ontario generally; last season none, but that is an exception.

Q. Have you wood convenient, and what kind?

A. From two to three miles; greater part poplar, but some oak and white ash, and small ash leaf maple.

Q. How do you fence your fields: with rails, wire, or sods?

A. With rails.

Q. How deep do you have to dig to get water in yours, as well as your neighbouring settlements? Is it good?

A. Generally they get water from nine to eighteen feet, but in this locality it is not so easily got. We expect to have a test well this fall. Water, in some instances, tastes a little salty. We use creek water.

Q. Have you a hay meadow convenient?

A. About two miles off I have a large one of my own.

Q. What grass grown in Ontario does prairie grass, cut for hay, most resemble?

A. Beaver meadow hay; only ours here, I think better, and more variety.

Q. Does it make good hay, and do cattle and horses feed well on it?

A. It makes good hay for cattle, and they feed well on it, but I do not think it near so good for horses as timothy hay.

Q. What is the average yield in tons to the acre?

A. From one ton to two and-a-half tons; different seasons and different grasses vary a good deal.

Q. To what height does grass on the open prairie generally grow?

A. On hard, dry prairies not over ten inches, but on hay meadows I have seen four feet.

Q. Is it as pasture equal to our timothy and clover in Ontario?

A. No, it is much thinner, and does not start so readily as clover, when eaten or cropped.

Q. Do the grasshoppers at any time destroy this grass: or can it at all times be relied upon as pasture?

A. They do a little cropping when very bad, but not, to my knowledge, to destroy it for hay or feed.

Q. How often do the settlers fire the prairie, and are your crops ever endangered by such fires?

A. There is a law against setting out prairie fires. I have not suffered any by them. I plough a few furrows around my fields and fences.

Q. Is it necessary to burn the grass on the prairie every fall in order to have a good growth the following year?

A. Not at all.

Q. Have you tried any fruit trees, if so, how have they done?

A. I have a few apple trees from seed, not well attended to, three years old. I do not think it very good for apples or pears, unless we have a very hardy kind; Siberian will do wild. Plums are very good, and likewise wild grapes, though small, grow finely on the banks of our streams, and better hops I never saw than grow here wild. We use them for our bread rising. Currants, raspberries and strawberries grow wild quite abundantly. I think the growth of apple trees too rapid, and wood does not ripen, the soil being rather rich, and not much shelter in general.

Q. What kind of lumber is most plentiful, and what is the average price for good lumber?

A. Poplar lumber, heretofore, and from twenty-five dollars to thirty dollars per thousand; now good fair pine is to be had at Fort Garry, dressed, for same price, and soon we will have a mill to cut up white wood pine, or rather spruce pine.

Q. Would you advise persons coming from Ontario, to settle as

farmers, to bring stock, such as working horses, oxen, cows, sheep, pigs, etc., or would you advise them to bring with them any machinery, such as reapers and mowers, waggons, ploughs, fanning mills, etc., or can they be bought as cheap in Manitoba as they are brought when we count the heavy freights and risk in doing so?

A. I would not advise to bring many horses. At first they do not thrive so well; besides grain is expensive till raised. Oxen I prefer at first. They do more work on rough feed, and are far less risky. I think nearly twenty per cent. of the horses die, or are useless the first two years after being here. If a farmer wants a driving mare or to breed, all well, but by far too many horses are brought in, till we have more timothy hay and oats raised. Oxen and cows thrive well, and none can go wrong to bring them in. They can be got here. Freight by United States route is very high. On immigrants' goods it costs in general about five dollars and a half per cwt; that is, counting boading, etc.

Q. What is the price of a good span of horses in Manitoba?

A. I think about fifteen to twenty per cent. higher than same quality in Ontario, no regular price; same for oxen, etc.

Q. What is the price of a good yoke of oxen?

A. I have sold them from \$125, \$130, \$35, \$40, \$50, \$65, \$70, \$85, to \$200 and \$210, the latter were prime, i. e., here or in Ontario.

Q. What is the price of a good cow?

A. I have sold them from \$30 to \$60.

Q. What is the price of good sheep?

A. I have none; they would do well if people had pasture fenced; I think they would sell pretty high, but wool, as yet, has been cheap.

Q. What is the price of good pigs?

A. Probably about twenty per cent. over same quality in Ontario. There are some very good pigs here.

Q. What is the price of a combined reaper and mower?

A. From \$200 to \$240.

Q. What is the price of a good plough, also fanning mill?

A. Wooden ploughs, Canadian, do. American, about \$40. Fanning mills from \$45 to \$50, both far too high for all the work on them.

Q. Would it not be a good speculation to bring out some thoroughbred stock, such as cattle, sheep, and pigs?

A. I think so. My thoroughbred cattle thrive well here both summer and winter.

Q. How do you think the country is situated for dairy, cheese, and butter making?

A. Very well, just the thing required.

Q. Have you always a ready market for your produce?

A. Can sell nearly all I raise at the door.

Q. What is the average?

A. Wheat, I sold last season about 1,000 bushels for \$1.50; two seasons before it was about \$1.25; barley, from 75 cents to \$1.12½; oats, from 75 cents to \$1; peas, from \$1 to \$1.25; potatoes, from 62½ cents to 87½ cents; butter, from 25 cents to 37½ cents per lb.; eggs, from 20 cents to 25 cents per dozen; cheese, from 25 cents to 30 cents per lb.

Q. What season of the year would you advise settlers (with or without families, who intend to settle as farmers) to come in?

A. In spring, if possible; but any season will do. I would advise immigrants with families to rent the first year or "share," and take a little time to select their location, and then to work and put in a crop, on the place they rent; generally plenty of farms can be got to rent or share. My reason for not raising more oats is, that the blackbirds heretofore were very troublesome, and seemed worse on the oats, but there is not now the one-fifth quantity of them that there used to be, and I hear they are generally worst at first. I intend to sow fully 20 acres next year (I would sow more if it were ready) with carrots, turnips and mangel-wurzel. These crops grow well, but the want of root houses is a disadvantage at present.

All the land around here, say from 30 miles west, *i. e.*, third crossing of White Mud or Palestine River, to say 25 miles east, or Poplar Point, is rapidly filling up, especially this summer, but plenty is to be had all the way westward to the Rocky Mountains. I think few countries in the world are superior to ours for agricultural purposes, and, although the winter is hard and long, cattle, if provided for, thrive well. I wintered 91 head last winter, and lost none, all turning out well in the spring. Most of them had only rough open sheds for shelter, and ran loose. We have none of the wet sleet in spring and fall that hurt cattle elsewhere. We are now stacking our grain, and I think my average will be fully 36 bushels per acre all round; last year I had 52 bushels per acre. I raised about 300 bushels of onions last year. I expect fully as good a crop this year.

I again say, bring fewer horses into the country, but as much other stock and implements as possible. First-class marsh harvesters, or machines which will employ two men binding and of the most improved make, are wanted. I have two combined ones, made by Sanger & Co., Hamilton, which answer well, but those that will cut wider and quicker are required. There are no hills, stumps, or stones to trouble us, and I have not a single rood lodged this year, although my crops are very heavy. Straw is generally stiff here, and not apt to lodge. This year we have excellent crops of potatoes, and a neighbour of mine, Mr. Hugh Grant, yesterday, dug

an early rose potato, weighing over two pounds, and not then full grown. I think grain drills or broadcast sowers would be an improvement, as it is generally windy here in Spring. They should be wider than those used in Ontario, say from eleven to twelve feet. I never saw better buckwheat in Ontario than the fine crop now grown here. I think by ploughing round our farms, and planting lines of trees, we could have shelter, and live posts to which wire fences could be attached with small staples. Timber grows fast here. If we had yellow or golden willow, which grows rapidly from cuttings, it would do well. Poles, that I planted, of black poplar or balm of gilead are shooting out, and we could plant hardier and better trees amongst them, which, though slower of growth, would replace them. In several localities the Indians make maple sugar from small trees.

I have not seen grain or other crops in either Minnesota or Dakotah to equal ours in Manitoba. I have been in those States in all seasons of the year, and have friends farming in Minnesota, who are desirous, if they can sell out, of coming here. I have seen people, newly arrived from the old country, grumble for a time, and afterwards you could not induce them to go back. Some that did go back soon returned. I have heard of some faint-hearted Canadians who, frightened with tales of grasshoppers and other drawbacks, returned without even examining the country, but I think, we are well rid of such a class. We have a large increase this year, principally from Canada, and I think they are likely to prove good settlers. I think, however, immigrants from the old country will be better off, as the population there is denser with less chances, whilst Ontario for those who are already settled there, offers as good a chance, as here, without moving. The grasshoppers that came here are driven by the wind from the deserts south of us. Our storms are not so bad as those in Minnesota, as the reports of the last few winters show.

CHAPTER VI.

MR. SHANTZ ON MANITOBA.

BEST TIME TO GO, AND WHAT CAPITAL TO COMMENCE WITH.

Mr. Jacob Y. Shantz, of Berlin, Ontario, who wrote in 1873, at the request of the Minister of Agriculture, a narrative of his visit with a Mennonite deputation, gives the following opinion as to the best time for the settler to go to Manitoba, and the amount of capital on which he may begin.

THE BEST TIME FOR THE SETTLER TO GO.

The settler should, if possible, be on his land by the 1st of June, when he would be in time to plant a patch of potatoes which will grow in an ordinary season when ploughed under the prairie sod. The ploughing for the next spring's crop should be done in June or July, when the sap is in the roots of the grass; being turned over at this season of the year it will dry up and the sod will rot, so that the ground will be in proper order for receiving and growing crops in the following spring.

WHAT CAPITAL IS NECESSARY WITH WHICH TO COMMENCE.

This is a question frequently asked—the answer depends entirely upon surrounding circumstances. A young man without family, willing to work and save, would secure himself a home in a few years, provided he had only ten dollars to pay the fees for a free grant homestead claim. Work is to be had at high wages, and he could work for other parties part of the time, and then hire help again in turn to assist in putting up a small homestead house. After

* In respect to work it should be borne in mind that while wages are high, the country is new, and the labour market therefore limited. Mechanics especially should take special information before they start. The Pacific Railway works will, of course, call for a good many men; and the progress of agricultural settlement will pave the way for many kinds of artisans.

that he could plough and fence in a few acres for a crop in the following spring. The next year he could earn enough to buy a yoke of oxen and other cattle, and thus, in a short time, he might become, comparatively, an independent farmer. A settler with a family ought to have provisions for one year (or the wherewithal to procure them).

Such a one, desiring to start comfortably, should have the following articles, or the means to purchase them, viz:

One yoke of oxen.....	\$120 00
One waggon.....	80 00
Plough and harrow.....	25 00
Chains, axes, shovels, etc.....	30 00
Stoves, beds, etc.....	60 00
House and stable, say.....	150 00
Total.....	\$465 00

A person having \$800 or \$1,000 can, if he wishes to carry on farming on a large scale, purchase another quarter section in addition to his free grant, when we will have a farm of three hundred and twenty acres of land for cultivation, and in addition can cut all the hay he wants in the marshes, if he thinks it desirable.

In conclusion, I would remark that a poor man can adopt the mode of farming on a small scale for the commencement, as practised by the half-breeds. They have carts made of two wheels and a straight axle, with two poles fastened on the axle to form shafts, and a rack or box thereon. To a cart so made is hitched one ox. The cart costs about ten dollars, and the ox and harness \$50 to \$60. With such a vehicle a man can do all the teaming that is required on a small farm—and after the first ploughing *one ox* can plough all that is required.

I strongly recommend Manitoba as a home for German emigrants, and as they can obtain large grants of land *en bloc*, they can form a settlement or settlements of their own, wherethey can preserve their language and customs, as in the Western States of America.

CHAPTER VII.

DOMINION LANDS ACT.

The following is a summary of the Dominion Lands Act :

An Act was passed in 1874 (35 Vic. cap. 23, 37 Vic. cap. 19) amending and consolidating the laws and Orders in Council respecting the public lands of the Dominion, and was further amended by the Act 39 Vic. cap. 19.

The administration and management is effected through a Branch of the Department of the Minister of the Interior, known as "*the Dominion Lands Office*."

The surveys divide the land into quadrilateral townships containing thirty-six sections of one mile square in each, together with road allowances of one chain and fifty links in width, between all townships and sections.

Each section of 640 acres is divided into half sections of 320 acres, quarter sections of 160 acres, and half quarter sections of eighty acres. All townships and lots are rectangular. To facilitate the descriptions for letters patent of less than a half quarter section, the quarter sections composing every section in accordance with the boundaries of the same, as planted or placed in the original survey, shall be supposed to be divided into quarter sections, or forty acres. The area of any legal subdivision in letters patent shall be held to be more or less, and shall, in each case, be represented by the exact quantity as given to such subdivision in the original survey; provided that nothing in the Act shall be construed to prevent the lands upon the Red and Assiniboine Rivers, surrendered by the Indians to the late Earl of Selkirk, from being laid out in such manner as may be necessary in order to carry out the clause of the Act to prevent fractional sections or lands bordering on any rivers, lake, or other water course or public road from being divided; or such lands from being laid out in lots of any certain frontage and depth, in such manner as may appear desirable; or to prevent the subdivision of sections or other legal subdivisions into wood lots; or from describing the said lands upon the Red and Assiniboine Rivers, or such subdivisions of wood lots, for patent, by numbers according to plan of record, or by metes and bounds, or by both, as may seem expedient.

PRICE OF DOMINION LANDS.

Unappropriated Dominion lands may at present be purchased at the rate of \$1 per acre; but no purchase of more than a section, or 640 acres, shall be made by the same person. Payments of purchases may be made in cash, excepting in the case of Railway land, or in scrip, at the option of the purchaser. The Minister of the Interior may, however, from time to time, reserve tracts of land, as he may deem expedient, for town or village plots, such lots to be sold either by private sale, and for such price as he may see fit, or at public auction. The Governor in Council may set apart lands for other public purposes, such as sites of market places, jails, court houses, places of public worship, burying grounds, schools, benevolent institutions, squares and for other like public purposes.

FREE GRANTS OR HOMESTEAD RIGHTS.

Free grants of quarter sections, 160 acres, are made to any male or female who is the head of a family, or to any male not the head of a family, who has attained the age of eighteen years, on condition of three years' settlement, from the time of entering upon possession. A person entering for a homestead may also enter the adjoining quarter section if vacant as a pre-emption right and enter into immediate possession thereof, and on fulfilling the condition of his homestead, may obtain a patent for his pre-emption right on payment for the same at the rate of one dollar per acre. When two or more persons have settled on, and seek to obtain a title to, the same land, the homestead right shall be in him who made the first settlement. If both have made improvements, a division of the land may be ordered in such manner as may preserve to the said parties their several improvements.

Questions as to the homestead right arising between different settlers shall be investigated by the local agent of the division in which the land is situated, whose report shall be referred to the Minister of the Interior for decision.

Every person claiming a homestead right from actual settlement must file his application for such claim with the local agent previously to such settlement, if in surveyed lands; if in unsurveyed lands, within three months after such land shall have been surveyed.

No patent will be granted for land till the expiration of three years from the time of entering into possession of it.

When both parents die, without having devised the land, and leave a child or children under age, it shall be lawful for the executors

(if any) of the last surviving parent, or the guardian of such child or children, with the approval of a Judge of a Superior Court of the Province or Territory in which the lands lie, to sell the lands for the benefit of the infant or infants, but for no other purpose; and the purchaser in such a case shall acquire the homestead right by such purchase, and on carrying out the unperformed conditions of such right, shall receive a patent for the land, upon payment of the office fees, \$10.

The title to lands shall remain in the Crown until the issue of the patent therefor, and such lands shall not be liable to be taken in execution before the issue of the patent.

If a settler voluntarily relinquishes his claim, or has been absent from the land entered by him for more than six months in any year, then the right to such land shall be forfeited.

A patent may be obtained by any person before three years, on payment of price at the date of entry, and making proof of settlement and cultivation for not less than twelve months from date of entry.

All assignments and transfer of homestead rights before the issue of the patent shall be null and void, but shall be deemed evidence of abandonment of the right.

These provisions apply only to homesteads and not to lands set apart as timber lands, or to those on which coal or minerals, at the time of entry, are known to exist.

GRAZING LANDS.

Unoccupied Dominion lands may be leased to neighbouring settlers for grazing purposes; but such lease shall contain a condition making such lands liable for settlement or for sale at any time during the term of such lease, without compensation, save by a proportionate deduction of rent, and a further condition by which, on a notice of two years, the Minister of the Interior may cancel the lease at any time during the term.

Unoccupied Dominion lands will be leased to neighbouring settlers for the purpose of cutting hay thereon, but not to the hindrance of the sale and settlement thereof.

MINING LANDS.

As respects mining lands, no reservations of gold, silver, iron, copper or other mines or minerals will be inserted in any patent from the Crown, granting any portion of the Dominion lands. Any person may explore for mines or minerals on any of the Dominion public lands, surveyed or unsurveyed, and, subject to certain provisions, may purchase the same. As respects coal lands, they cannot be taken for homesteads.

TIMBER LANDS.

Provisions are made in the Act for disposing of the timber lands so as to benefit the greatest possible number of settlers, and to prevent any petty monopoly. In the subdivision of townships, consisting partly of prairie and partly of timber land, such of the sections as contain islands, belts, or other tracts of timber may be subdivided into such number of wood lots, of not less than ten and not more than twenty acres in each lot, as will afford one such wood lot to each quarter section prairie farm in such township.

The local agent, as settlers apply for homestead rights in a township, shall if required apportion to each quarter section one of the adjacent wood lots, which shall be paid for by the applicant at the rate of \$1.00 per acre. When the claimant has fulfilled all requirements of the Act, a patent will issue to him for such wood lot.

Any homestead claimant who, previous to the issue of the patent, shall sell any of the timber on his claim, or on the wood-lot appertaining to his claim, to saw-mill proprietors or to any other than settlers for their own private use, shall be guilty of a trespass and may be prosecuted therefor, and shall forfeit his claim absolutely.

The word *timber* includes all lumber, and all products of timber, including firewood or bark.

The right of cutting timber shall be put up at a bonus per square mile, varying according to the situation and value of the limit, and sold to the highest bidder by competition, either by tender or by public auction.

The purchaser shall receive a lease for 21 years, granting the right of cutting timber on the land, with the following conditions: To erect a saw mill or mills in connection with such limit or lease, of a capacity to cut at the rate of 1,000 feet broad measure in 24 hours, for every two and a half square miles of limits in the lease, or to establish such other manufactory of wooden goods, the equivalent of such mill or mills, and the lessee to work the limit within two years from the date thereof, and during each succeeding year of the term;

To take from every tree he cuts down all the timber fit for use, and manufacture the same into sawn lumber or some other saleable product;

To prevent all unnecessary destruction of growing timber on the part of his men, and to prevent the origin and spread of fires;

To make monthly returns to Government of the quantities sold or disposed of—of all sawn lumber, timber, cordwood, bark, etc., and the price and value thereof;

To pay, in addition to the bonus, an annual ground-rent of \$2.00 per square mile, and further, a royalty of 5 per cent. on his monthly account;

To keep correct books, and submit the same for the inspection of the collector of dues whenever required.

The lease shall be subject to forfeiture for infraction of any of the conditions to which it is subject, or for any fraudulent return.

The lessee who faithfully carries out these conditions shall have the refusal of the same limits, if not required for settlement, for a further term not exceeding 21 years, on payment of the same amount of bonus per square mile as was paid originally, and on such lessee agreeing to such conditions, and to pay such other rates as may be determined on for such second term.

The standard measure used in the surveys on the Dominion is the English measure of length.

Dues to the Crown are to bear interest, and to be a lien on timber cut on limits. Such timber may be seized and sold in payment.

Any person cutting timber without authority on any Dominion lands, shall, in addition to the loss of his labour and disbursements, forfeit a sum not exceeding \$3 for each tree he is proved to have cut down. Timber seized as forfeited shall be deemed to be condemned, in default of owner claiming it within one month.

FORM OF APPLICATION FOR A HOMESTEAD RIGHT.

I, of do hereby apply to be entered, under the provisions of the *Act respecting the Public Lands of Dominion*, for quarter sections, numbers and , forming part of section number of the Township of , containing acres, for the purpose of securing a homestead right in respect thereof.

AFFIDAVIT IN SUPPORT OF CLAIM FOR HOMESTEAD RIGHT.

I, A B, do solemnly swear (or affirm, as the case may be,) that I am over 18 years of age; that I have not previously obtained a homestead under the provisions of the "*Dominion Lands Acts*"; that the land in question belongs to the class open for homestead entry; that there is no person residing or having improvements thereon; and that my application is made for my exclusive use and benefit, and with the intention to reside upon and cultivate the said land. So help me God.

On making this affidavit and filing it with the local agent, and on payment to him of an office fee of ten dollars, he shall be permitted to enter the land specified in the application.

LAND SCRIP.

Col. Dennis, the Surveyor General, gave the following statement in evidence before the Immigration and Colonization Committee, in the session of 1877:—There are three kinds of scrip.

1. The certificates issued to soldiers for military services performed to the Dominion—in other words, Military Bounty Land Warrants.

2. Similar certificates are issued by the authority of law for services rendered to the Government in the North-West Mounted Police.

These two certificates, if located by the owner, may only be entered in quarter sections of land, 160 acres, intact.

A number of these warrants, however, may be acquired by any individual and may be used to pay for land in the same way as cash.

Both military and police warrants may be purchased and are assignable, and whoever holds them for the time being, under a proper form of assignment, can exercise full ownership over them, either in the locating or paying for land; but the first assignment from the soldier or policeman, as the case may be, must be endorsed on the back of the warrant.

No affidavit is necessary where the assignment is endorsed, but the execution of the assignment must be witnessed, either by a Commissioner for taking affidavits or by a Justice of the Peace.

Any subsequent assignment may be upon a separate paper, but must be regularly attested before a Commissioner, and accompany the warrant in its transmission to the Land office.

3. The third kind of scrip is that issued to the half-breed heads of families and to old settlers in the Province, under recent Acts.

A claim against the Government for lands may, by law, be committed by an issue of scrip which would be in form similar to that issued to the Half-breed heads of families and old settlers before mentioned.

This scrip is a personalty, and there is no assignment thereof necessary to transfer the ownership. The bearer for the time being is held to be the owner, and we accept it in the Dominion Lands Office in payment for Dominion lands, the same as cash.

The Surveyor-General stated further, in answer to a question, that land scrip cannot be used in payment of the half-breeds claims: and explained that the lands set apart for half-breeds, under the Manitoba Act, was an absolute grant to the children. The extent to which lands belonging to minors will be tied up will depend greatly upon whether steps be taken to appoint trustees who would be able to make sales, or upon such other measure as the Government might see fit to adopt, with the view of bringing these lands into the market.

The only other reserves in the Province are those of the Mennonites, which are rapidly filling up. There is still a very considerable extent of excellent land in the Province now available for settlement, but it can easily be understood the people who have been going into the Province for the last four or five years have selected the most favorable locations, and, consequently, the most of the good land in those localities have been taken up. The lands remaining, although generally desirable, are not so conveniently situated.

Col. Dennis further stated in answer to questions: The Province of Manitoba contains nearly nine millions of acres.

The Railway reserve contains about 1,900,000 acres, and the Mennonite townships about 500,000 acres.

The Hudson Bay Co.'s one-twentieth contains about 430,000 acres.

There are granted for school purposes two whole sections, or 1,280 acres, being sections 11 and 29 in each township, which are, by law, dedicated throughout the whole North-West for educational purposes, and the grant amounts in Manitoba to 400,000 acres.

In Manitoba the greatest quantity of land available for settlement is in the west and south-west.

Miles of railway located in the Province are about 158; the main line of the Canada Pacific Railway about 77, and the Pembina Branch about 81 miles.

Road allowances are laid out on the ground in the townships in Manitoba which correspond to concessions and side roads in Ontario and Quebec. Each section or square mile there is surrounded by an avenue of 99 feet, or a chain and a half, in width, resulting in a magnificent dedication to the public for highways.

Q. Are any of the lands fronting on the main river in Manitoba available for settlement?—None, with the exception of lands on the Assiniboine River, above Prairie Portage. As a rule, the lands on the Red River and Assiniboine River were laid out and settled upon, previous to the transfer, in narrow frontages, running back two miles, called the "Settlement Belt," and the township lands available for sale and settlement lie outside of this Belt. There are many unoccupied lots in the Settlement Belt, but people are not allowed to enter them, as they are considered to possess a special value. The intention is, shortly, to offer the unoccupied lots belonging to the Government, in the Settlement Belt, at public auction, at an upset price, with conditions of actual settlement upon the land.

COLONIZATION.

If any person or persons undertake to settle any of the public lands of the Dominion free of expense to the Government, in the proportion of one family to each alternate quarter section, or not less

than sixty-four families in any one township, under the Homestead provisions of the Act hereby amended, the Governor in Council may withdraw any such township from public sale and general settlement; and may, if he thinks proper, having reference to the settlement so effected and to the expense incurred by such person or persons in procuring the same, order the sale of any other and additional lands in such township to such person or persons at a reduced price and may make all necessary conditions and agreements for carrying the same into effect.

The expenses, or any part thereof, incurred by any person or persons for the passage money or subsistence in bringing out an immigrant, or for aid in erecting buildings on the homestead, or in providing farm implements or seed for such immigrant, may if so agreed upon by the parties, be made a charge on the homestead of such immigrant, and in case of such immigrant attempting to evade such liability by obtaining a homestead entry outside of the land withdrawn under the provision of the next preceding section, then and in such case, the expense incurred on behalf of such immigrant, as above, shall become a charge on the homestead so entered, which, with interest thereon, must be satisfied before a patent shall issue for the land: provided as follows:

(a.) That the sum or sums charged for the passage money and subsistence of such immigrant shall not be in excess of the actual cost of the same as proved to the satisfaction of the Minister of the Interior;

(b.) That an acknowledgment by such immigrant of the debt so incurred shall have been filed in the Dominion Lands Office;

(c.) That, in no case, shall the charge for principal moneys advanced against such homestead exceed in amount the sum of two hundred dollars;

(d.) That no greater rate of interest than six per cent. per annum shall be charged on the debt so incurred by such immigrant.

FOREST TREE CULTURE.

Any person, male or female, being a subject of Her Majesty by birth or naturalization, and having attained the age of eighteen years shall be entitled to be entered for one quarter-section or less quantity of unappropriated Dominion lands as a claim for forest tree planting.

Application for such entry shall be made in the forms prescribed in the Dominion Lands' Act, which may be obtained from the local agent, and the person applying shall pay at the time of applying an office fee of ten dollars for which he or she shall receive a receipt and

also a certificate of entry, and shall thereupon be entitled to enter into possession of the land.

No patent shall issue for the land so entered until the expiration of six years from the date of entering into possession thereof; and any assignment of such land shall be null and void, unless permission to make the same shall have been previously obtained from the Minister of the Interior.

At the expiration of six years the person who obtained the entry, or, if not living, his or her legal representative or assigns shall receive a patent for the land so entered, on proof to the satisfaction of the Local Agent, as follows:—

1. That eight acres of the land entered had been broken and prepared for tree planting within one year after entry, an equal quantity during the second year, and sixteen additional acres within the third year after such date:—

2. That eight acres of the land entered had been planted with forest trees during the second year, an equal quantity during the third year, and sixteen additional acres within four years from the date of entry, the trees so planted not being less than twelve feet apart each way:—

3. That the above area, that is to say, one-fifth of the land, has, for the last two years of the term, been planted with timber, and that the latter has been regularly and well cultivated and protected from the time of planting. The entry of a quarter section for pre-emption in connection with homestead may be substituted in whole or part for one for tree planting.

CHAPTER VIII.

ANALYSIS OF SOIL, BY A GERMAN CHEMIST.

The following is an analysis of the soil of the Province of Manitoba, by Professor V. Emmerling, Director of the Chemical Laboratory of the Agricultural Association of the University of Kiel, Holstein, Germany. This scientific analysis confirms in a remarkable manner the reports which have been received of the great fertility of the soil of Manitoba.

Translation of Letter to Senator Emil Klotz.

"Kiel, 29th April, 1872.

"HON. SENATOR,

"The analysis of the Manitoba soil is now completed, and the result is in 100,000 parts:—

Potash.....	228.7
Sodium.....	33.8
Phosphoric Acid.....	69.4
Lime.....	682.6
Magnesia.....	16.1
Nitrogen.....	486.1

"Yours truly,

(Signed)

"V. EMMERLING.

Extract from Letter of Senator Emil Klotz to Jacob E. Klotz, Agent for the Dominion Government.

"Kiel, 4th May, 1872.

"After considerable delay, I succeeded in obtaining the analysis of the Manitoba soil from Professor Emmerling, Director of the chemical laboratory of the Agricultural Association of this place, and hope it may be of service to you. Annexed I give you our analysis of the most productive soil in Holstein, whereby you will see how exceedingly rich the productive qualities of the Manitoba soil are, and which fully explains the fact that the land in Manitoba is so very fertile, even without manure.

"The chief nutrients are, first, nitrogen, then potash and phosphoric acid, which predominates there; but what is of particular importance is the lime contained in the soil, whereby the nitrogen is set free, and ready to be absorbed in vegetable organism. The latter property is defective in many soils, and when it is found defective recourse must be had to artificial means by putting lime or marl (a clay which contains much lime) upon the same.

"According to the analysis of the Manitoba soil, there is no doubt that for the farmer who desires to select for his future home a country which has the most productive soil and promises the richest harvests, no country in the world offers greater attractions than the Province of Manitoba, in the Dominion of Canada."

Analysis of the Holstein Soil and Manitoba Soil compared.

	Holstein Soil.	Excess of Properties of Manitoba Soil.
Potash.....	30	198.7
Sodium.....	20	13.8
Phosphoric Acid...	40	29.4
Lime	130	552.6
Magnesia.....	10	6.1
Nitrogen	40	446.1

LANDS NOW AVAILABLE FOR SETTLEMENT IN MANITOBA, KEEWATIN AND NORTH-WEST TERRITORY.

The Secretary of the Department of Agriculture having, at the request of the Minister of Agriculture, made an enquiry of the Surveyor General, respecting the lands now actually available in the Province of Manitoba, Keewatin, and North-West Territory, for the purpose of information of the numerous emigrants who are now proceeding to the North-West, the following letter was written to explain the facts:

DEPARTMENT OF THE INTERIOR.

Surveyor General's Office,

OTTAWA, 6th April, 1878.

SIR,—Referring to our conversation of this morning, I now beg to enclose you the copy of an Order in Council, dated the 9th November last, setting forth the conditions upon which persons will be allowed to settle upon lands reserved for railway purposes in Manitoba.

I may say that the lands so far reserved for railway purposes are those for twenty miles on each side of the main line surveyed for the Canadian Pacific Railway.

It is probable that lands which may be settled on within the Railway Reserve *outside* the Province, so long as they form no part of a Reserve for town plot purposes, such as at Battleford, may, on being included within the Township Surveys, be acquired on the terms of the Order in Council.

With regard to your enquiries as to the lands open for general settlement outside of townships especially reserved for colonization or for half-breeds, I beg to remark that a very large area of desirable land is open for entry in the several portions of the Province described as follows:

1. The lands on each side of the Canadian Pacific Railway line through the Province, not reserved for half-breeds, are open for settlement upon the conditions set forth in the Order in Council enclosed.

2. There are a number of townships available to the east and north-east of Emerson.

3. Between the Mennonite Reserve west of the Red River, and the halfbreed Reserve to the north, and in the townships within and to the west and south-west of what is known as the Pembina Mountain Settlement.

4. In the vicinity of Palestine and the Beautiful Plain.

5. A very extensive district containing valuable lands for settlement is found in the Little Saskatchewan and Riding Mountain country, being in the Territories from ten to forty miles west of the westerly limits of the Province.

6. The land fronting on the north side of the Rainy River in Keewatin, is of excellent quality, and presents an extensive field for settlement.

It is a wooded country, however, and therefore requires a greater expenditure of labour to bring a given area under cultivation.

In reply to your enquiry as to the position of people who may settle upon unsurveyed lands, I beg to say that in all such cases persons so settling must take their chances of being found on land which may prove to belong to the Hudson's Bay Company, part of the one-twentieth reserved to the said Company by the Deed of Surrender.

In the regular township surveys, sections eight and twenty-six represent this one-twentieth, but in the river belts, the Company's proportion will probably be determined by lot.

The Dominion Lands Act provides that when the township surveys may embrace settlements previously formed (on land open at the time for general settlement), such settlers will be confirmed in their several holdings as homesteads, up to the extent of one hundred and sixty acres, in legal subdivisions, including their improvements.

Settlers on land within the limits of the Railway Reserve having taken up the same after the date of the 9th November, 1877, will require to pay for the lands in accordance with the provisions of the Order in Council of that date.

Those persons who may be found settled upon the borders of navigable rivers, such as the north and south branches of the Saskatchewan, outside of the Railway Reserve, will be confirmed in possession of the lands on which they may have settled, provided they conform to such conditions as the Government may have made in respect of the manner in which title for such lands may be acquired.

I have the honour to be,

Sir,

Your Obedient Servant.

L. S. DENNIS,

Surveyor General.

JOHN LOWE, Esq.,

Secretary,

Department of Agriculture
and Immigration, Ottawa.

ORDER IN COUNCIL RESPECTING THE SETTLEMENT OF RAILWAY LANDS.

Copy of a Report of a Committee of the Honourable the Privy Council, approved by His Excellency the Governor General in Council, on the 9th November, 1877.

On a report, dated 30th October, 1877, from the Hon. the Minister of the Interior, stating that, in consequence of the rapidly increasing demand for lands for settlement in Manitoba, and also of the continued dissatisfaction of the locking up of the lands withdrawn for twenty miles on each side of the line surveyed for the Canadian Pacific Railway by the Order in Council of the 20th December, 1874, he is of opinion that it is expedient to effect some amelioration of the conditions of the said Order in Council so far as relates to the lands within the Province.

He, therefore, recommends that the lands in Manitoba withdrawn as above be thrown open to actual settlement, but not for homestead or pre-emptive entry, or for entry by military bounty or police warrants, or for ordinary sale. No person to be allowed to acquire more than one-half section or 320 acres, and such land to be paid for by the occupant at whatever rate and upon such terms as may be fixed therefor by the Government when the remainder of the lands in the Province, of this class, are disposed of.

He further recommends that persons desiring to acquire such lands shall, previous to settlement thereon, be required to be entered therefor at the nearest Dominion Lands office, and, in order to prove their good faith, the applicants shall be obliged, in each case, to make a payment, in advance, at the time of entry, of one dollar per acre in cash on account of the purchase, and further be required to settle on and commence to cultivate the land within one year from the date of entry, or, in default thereof, the payment so made to be forfeited.

No scrip of any kind, or military bounty, or police warrants to be receivable in payment of the lands above described.

The Minister observes that the withdrawal of the lands in question was effected under section 105 of the Dominion Lands Act, circumstances not permitting the application thereto of the Act 37 Vic. cap. 14, which provides for the construction of the railway, and as no statute exists authorizing the special mode above suggested of disposing of the lands withdrawn, it will be advisable to confirm the action proposed to be taken as above in that respect by legislation during the ensuing session of Parliament.

The Committee concur in the foregoing Report, and recommend that the same be approved and acted on.

Certified.

(Signed,) W. A. HIMSWORTH, C. P. C.

FARES AND TRANSPORT OF EMIGRANTS.

(The following Rates are for the Season of 1878.)

From Toronto or Hamilton via the Lakes and Duluth to Winnipeg :

1st Class.....	\$42 50
2nd or Emigrant Class.....	21 00

From Sarnia, Goderich, Kincardine, Southampton or Windsor to Winnipeg :

1st Class.....	\$40 00
2nd or Emigrant Class.....	20 00

Weight of Emigrants' baggage allowed, 150 lbs.

Emigrants' effects by the car load :

From Brockville to Fisher's Landing, one car, \$200 : at this rate a span of horses would cost about \$35 ; or one horse and a cow about \$17.50 each. They might be driven from Fisher's Landing to Winnipeg.

From Toronto or Hamilton to Winnipeg, one car, \$260.

From Sarnia, Windsor, Goderich, Kincardine and Southampton to Winnipeg, one car, \$245.

Special arrangements have been made by the Grand Trunk Company for emigrants going to Winnipeg in parties. To obtain the benefit of such arrangements special application should be made in the case of each party. This may be done either directly or through any of the Dominion Immigration Agents.

Special rates will be granted over the Intercolonial and Grand Trunk Railways to emigrants for Manitoba or parts of the North-West, on the order of any of the Dominion Agents, at the rate of 1d a mile to Toronto, where the special rates above quoted to Winnipeg begin.

DOMINION GOVERNMENT AGENTS TO WHOM APPLICATION MAY BE MADE.

<i>Halifax, N.S.</i>	E. Clay.
<i>St. John, N.B.</i>	R. Shives.
<i>Quebec (City)</i>	L. Stafford.
<i>Montreal</i>	J. J. Daley.
<i>Sherbrooke, E.T.</i>	H. Hubbard.
<i>Ottawa</i>	W. J. Wills.
<i>Toronto</i>	J. A. Donaldson.
<i>Hamilton</i>	John Smith.
<i>London (Ont.)</i>	A. G. Smythe.

AT DULUTH,

During the season of navigation, a special agent is placed, Mr. W. B. Grahame. He will be in attendance on the arrival of all steamers, to assist emigrants in the bonding of their baggage, and otherwise to give them information.

~~Be~~ All emigrants should be implicitly guided by his disinterested official advice in preference to listening to persons whom they do not know, who may have interest to deceive them.

AGENTS IN MANITOBA.

<i>Dufferin</i>	J. E. Tetu.
<i>Winnipeg</i>	W. Hespeler.

These agents will give emigrants all possible information and advice. Emigrants may obtain from them directions how to go about getting their lands.

SPECIAL CAUTION TO SETTLERS.

It may save a great deal of trouble if immigrants will be careful not to settle on sections 8 and 26, these being Hudson Bay Lands, or on sections 11 and 29, these being school lands. The Dominion Lands Act specially sets aside these reserves; and they are not open to the public.

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